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INDEX.

EMBELLISHMENTS.

1. THE TRANSLATORS OF THE BIBLE—REV. ELIAS RIGGS, D.D., REV. WILLIAM GOODELL, D.D., REV. WILLIAM GOTTLIEB SCHAUFFLER, D.D. Engraved by George E. Perine.
2. HIS ROYAL HIGHNESS PRINCE ALBERT. Engraved by George E. Perine.
3. PROF. S. F. B. MORSE. Engraved by John Sartain.
4. CAPTAIN JOHN ERICSSON. Engraved by George E. Perine.

A

African Population,	144
Alliteration, Specimen of,	430
Arctic Adventure, a Day of— <i>St. James's Magazine</i> ,	130
Armies of Europe,	287
Army and Navy Estimates— <i>Dublin University Magazine</i> ,	267
Artillery Prospects— <i>Dublin University Magazine</i> ,	178
Ascents of the Volcano Orizava— <i>Colburn's New Monthly</i> ,	91
Astronomy of the Ancients, Sir G. C. Lewis on— <i>North British Review</i> ,	433
Austrian Rule in Tuscany— <i>Chambers's Journal</i> ,	122

B

Basiliak, the Modern— <i>Chambers's Journal</i> ,	30
Bible Translators,	112
Biographical Sketches and Brief Memoranda of—	
Albert, Prince,	283
Alfred the Great,	24
Belgioso, Madame la Princesse Christine Frivulce de,	1
Bonaparte, Louis Lucien,	143
Bonaparte, Charles Louis, (Emperor,)	144
Browning, Elizabeth Barrett,	74
Brunel, Sir Marc Isambard,	418
Charles II. of Spain,	453
Ericsson, Captain John,	566
Forbes, Edward,	166
Goodell, William,	114
Irving, Washington,	135
Lamb, Charles,	58
Larrey,	118
Montauban, General,	141
Morse, Samuel Finley Breese,	416
Nesselrode, Count,	285
Peabody, George,	141
Pitt, William,	376
Richard III.,	355, 559
Riggs, Elias,	116

Schauffler, William Gottlieb,	115
Tocqueville, Alexis Charles Henri Clerel de,	17
Wallerloo, the Prince of, (Wellington,)	140
Windischgrätz, Prince,	285
Browning, Elizabeth Barrett— <i>British Quarterly</i> ,	74
Browning's, Mrs., Last Poems— <i>London Eclectic</i> ,	351
Brunel, Sir Marc Isambard— <i>Colburn's New Monthly</i> ,	418
By-gone Manners and Customs— <i>Dublin University Magazine</i> ,	342, 519

C

Canterbury and its Archbishops— <i>Bentley's Miscellany</i> ,	235
Casket of Jewels— <i>Dublin University Magazine</i> ,	104
Charles II. of Spain, the Court of— <i>National Review</i> ,	453
City of the Sun— <i>Fraser's Magazine</i> ,	178
Concerning the Sorrows of Childhood— <i>Fraser's Magazine</i> ,	78
Contemplations of the Heavens,	145
Crystal Palace for the Parisians,	144
Curious Document,	144

D

Dinner-Tables and Table-Talkers— <i>London Eclectic</i> ,	191
Discoveries—New or Old— <i>British Quarterly</i> ,	50
Dreamland— <i>Bentley's Miscellany</i> ,	402

E

Electric Telegraph,	142
Electricity at Work— <i>McMillan's Magazine</i> ,	478
Engineers, Lives of the— <i>British Quarterly</i> ,	323, 464
England, Comprehensive History of— <i>London Eclectic</i> ,	101
Ethnologists, Battle of the— <i>Temple Bar Magazine</i> ,	331
Exhibition, the Great—Opening Ceremonial— <i>London Times</i> ,	424

F

Fish, a Witness in a Court of Justice,	285
Forbes, Edward, the Naturalist— <i>Bentley's Miscellany</i> ,	166
Four-fold Biography— <i>British Quarterly</i> ,	203
French Clergy, Present Movements among the— <i>North British Review</i> ,	364

- G**
- Gardens on the Thames, 431
 Gases, Diffusion of, in relation to Social Life—
Fraser's Magazine, 335
 Geistertodtenglocke, die — *Dublin University Magazine*, 210
 Gentle Voice, 287
 Gibraltar, Taking of, 143
 Going On—*Fraser's Magazine*, 498
 Great Scholars and Great Eaters, 550
- H**
- Hares racing with Railway Trains, 143
 Heart, the Human—*Popular Science Review*, 306
 Humming-Birds—*Fraser's Magazine*, 253
- J**
- Jungle, in Regent's Park, 286
- L**
- LITERARY MISCELLANIES — 140-144; 284-288;
 428-432; 570-572
 Lock-Jaw Cured, 432
 London, the Growth of—*St. James's Magazine*, 543
- M**
- Madagascar, 143
 Martyrs in Palestine, History of the—*London Review*, 313
 Merrimac and Monitor—*London Quarterly*, 528
 Mexico, Picture of, 187
 Modern Philosophy, 557
 Monthly Science and Art—*Chambers's Journal*, 263
 Monument, Great, in Russia, 140
 Music and the Lyric Drama—*National Review*, 217, 315
 My First and Last Partner—*Chambers's Journal*, 274
- N**
- Non-Combatant Hero—*Chambers's Journal*, 118
- P**
- Papal States, the Recent Revolution in—*British Quarterly*, 225
 Paupers in England and Wales, 140
 Phosphorescence of the Sea—*Popular Science Review*, 241
 Physiological Phenomena—*Galignani*, 431
 Pitt, William, the Latter Years of—*Dublin University Magazine*, 376
- POETRY—**
- Death Ship, the—*Bentley's Miscellany*, 134
 I would not call thee mine, 141
 Lamb's Epitaph—WILLIAM WORDSWORTH, 60
 Last of his Race—J. W. THIRLWALL, 142
 Life-Boat of Mercy, the—*Colburn's New Monthly*, 90
 Melancholy—THOMAS HOOD, 58
 Near and the Heavenly Horizons—*London Review*, 304
 Ocean, 430
 Polar Star—WESTBY GIBSON, 287
 Queen's Message, the, 33
- Q**
- Queen Victoria and the New Mausoleum, 288
- R**
- Railways, Facts about—*British Quarterly*, 42
 Regalia of England—*Leisure Hour*, 413
 Reign of Terror, the—*Fraser's Magazine*, 483
 Replanting France, 432
 Richard the Third, Memoirs of—*Edinburgh Review*, 355, 559
 Russia, its Weakness. See Plain Truths plainly Spoken, 288
- S**
- Sad Side of the Humorist's Life—*London Eclectic*, 57
 Safety-Lamp, the First, 141
 Savoy, House of—*North British Review*, 1
 Social Life in Medieval England—*British Quarterly*, 289, 518
 Statistics of 1862, 140
 Stones, Artificial Precious—*Popular Science Review*, 299
 Sun's Atmosphere—*Chambers's Journal*, 404
 Sun, the, and Solar Phenomena—*Popular Science Review*, 247
 Sun, the—what is it made of?—*Leisure Hour*, 450
- T**
- Telescope, Mammoth, 285
 Thousand Years Ago; or, Alfred the Great—*Titan*, 24
 Time and Space—*St. James's Magazine*, 407
 Tip-Top Style, Sample of, 143
- U**
- Under the Sea and through the Earth—*St. James's Magazine*, 538
- V**
- Virginia, the True Founder of—*St. James's Magazine*, 392
- W**
- Weddings and Funerals in Poland—*Dublin University Magazine*, 34
 Whales, Enormous Capture of—*Shetland Advertiser*, 430
 Wind the Vital Current of the World—*Chambers's Journal*, 400
 Woman, the True, 431



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From the North British Review.

THE HOUSE OF SAVOY.*

THE Princess Belgiojoso is one of the most striking and original figures in contemporary biography; and the varied and remarkable incidents in her career might claim a prominent place in the annals of a far more romantic age than that in which she lives. Nobly born, rich, and beautiful, with every temptation to a life of ease and luxury, she has again and again risked rank, and wealth, and life in the cause of Italian independence; has undergone the vicissitudes and hardships of poverty and exile, rather than submit to the Austrian yoke; has lived to see the triumph of that cause to which she has devoted her existence; and has now the happiness of beholding the whole of Italy, with the exception of Rome and Venice, united

under the constitutional scepter of Victor Emmanuel. She is the daughter of Gerónimo-Isidoro, Marquis of Trivulzio, and was born in Lombardy in the summer of 1808. In 1824, she married the Prince of Barbiano and Belgiojoso. During the earlier part of her married life, her high rank, wit, and varied accomplishments rendered her the object of general admiration and homage; and at Milan, the ancient and beautiful capital of Lombardy, she was a leader of fashion, and a distinguished patroness of artists and men of letters. But she soon became dissatisfied with such a career, and, deeply sensible of the wrongs of Italy, determined to devote all the energies of her life to the cause of Italian freedom.

For the last thirty years she has been one of the most zealous supporters of the party of action, and has remained true to it through every fluctuation of fortune.

* *Histoire de la Maison de Savoie.* Par Mme. la Princesse CHRISTINE TRIVULCE DE BELGIOJOSO. Paris: Michel Lévy Frères, Libraires-Éditeurs. 1860.

Wearied of a tranquil and luxurious life at Milan, she went to reside in Paris, where her talents and political opinions procured her the friendship of the most distinguished writers and statesmen of the day, particularly of Mignet, and of Augustine Thierry. In 1848, she returned to Milan, and entered heart and hand into the ill-planned and worse conducted Italian revolution. At her own expense she raised and equipped a body of cavalry, which, according to some accounts, she led in person against the Austrians; and during her brief military career, she is said to have displayed, on several occasions, a courage and presence of mind that would have done credit to the most experienced soldier. After the total defeat of the Italians by Radetzky, she was banished from Italy, and her possessions were confiscated by the Austrian government. She then sought an asylum in the East, and during her exile, often endured great hardships, though she was generously treated by the Sultan, who gave her a grant of land on the Gulf of Nicomedia for herself and the banished Italians who had followed her fortunes.

It was about this time that she began to distinguish herself by her literary abilities. In 1850, her *Souvenirs d'Exil* appeared in the *National*; and an account of her voyage to Asia Minor was subsequently published in the *Revue des deux Mondes*, to which she has since been a frequent contributor. In 1855, she was permitted to return to Italy, and her possessions were restored by the amnesty of the Emperor Francis Joseph. But sufferings, misfortunes, and the progress of years had so little cooled the ardor of her patriotism, that previously to the war which finally destroyed the Austrian ascendancy in Italy, she was one of the most active and indefatigable agents of the late lamented Count Cavour—traveling from place to place, holding conferences, smoothing differences, reconciling republicans and constitutionalists, and gaining new friends and allies. In 1858 she lost her husband; but she still continues to devote herself with characteristic activity to politics and literature.

A history of the House of Savoy comes with singular grace and appropriateness from this Italian heroine, who for so many years has been one of the steadiest supporters of the cause of unity and independence, as well as one of the most devoted

adherents of that great old family; and who, to an intimate acquaintance with the politics and history of Italy, unites literary abilities which have won the approbation of the best judges of literary merit both in Italy and in France. We do not, indeed, think that the Princess has added much to the information contained in Guichenon's learned, elaborate, and costly work on the House of Savoy, and in Gallenga's more accessible and popular History of Piedmont. But she has succeeded in compressing within the compass of a single volume, a distinct and well-written account of one of the most illustrious, and certainly the most ancient, of the reigning houses of Europe. The narrative in which she recounts the events of the long period of upward of eight centuries, during which, more than forty ancestors of the present King of Italy have swayed the scepter of Savoy, as Counts, Dukes, or Kings, is always clear and often picturesque. Happily for the interest of her work, the great majority of these Princes have been wise, brave, and fortunate; while the lives of several of the Counts are full of romance and adventure, and abound in instances of personal prowess and gallant achievements in Europe, in the Holy Land, in the Greek Empire, and in the islands of the Mediterranean. Yet even these, though gallant knights as ever couched lance, and strongly imbued with the chivalrous madness of the age in which they lived, were at the same time distinguished by the common-sense, and cautious, far-sighted policy, that has since characterized their descendants. While fighting for the cause of heaven, they never lost sight of the interests of earth, and seldom suffered themselves to be dazzled or seduced into forgetfulness of the essential interests of their dynasty.

A circumstance that can not fail to strike even the most superficial student of the history of the House of Savoy, is the unusually large number of distinguished men it has produced. In the history of most other sovereign houses such men are the exception; here they are the rule. It might be possible to point out other dynasties that have risen from smaller beginnings to greater power, but it would not be easy to fix upon any where territorial aggrandizement and political influence have been more manifestly the results of wisdom and valor. It is in consequence of this union of political sagacity and war-

like courage that the descendant of Humbert the White-handed, the founder of the family, who was lord of only a small Alpine territory environed by more powerful states, now rules over twenty millions of subjects, and the whole of the fair Italian peninsula, with the exception of Rome and Venice. The Princess Belgiojoso, whose most cherished aspiration is the fusion of the different nationalities of Italy into one great people, and the destruction of all foreign rule, sees in the history of the House of Savoy the finger of Providence visibly marking it out as the destined regenerator of Italy; and her chief object in publishing the present volume is to influence public opinion in Europe in favor of her views, by a popular narrative of the too little known history of the ancestors of Victor Emmanuel.

We propose at present — taking the Princess Belgiojoso for our guide — to narrate some of the most interesting and romantic incidents in the history of the House of Savoy, and to sketch the career of some of its greatest Princes. The earliest sovereigns were simply Counts of Savoy and Maurienne, owning a sterile domain in the heart of the Cottian Alps, and twelve towns, of which Chambéry and Geneva were the chief. The period occupied by the history of the Counts extends from the reign of Humbert I.—who, in common with the Electoral House of Saxony, was a descendant of the great Duke Wittikind, cotemporary with Charlemagne—to that of Amadeus VIII., created Duke of Savoy by the Emperor Sigismund in the early part of the fifteenth century. The ducal period extends over three centuries, from Amadeus VIII., to Victor Amadeus I., who received the royal title by the Treaty of Utrecht in 1713. The kingly period comprehends a century and a half; and its most remarkable incident unquestionably is the exchange, by the present representative of the house, of the title of King of Sardinia for the far nobler one of King of Italy. The name of Victor Emmanuel will go down, with that of Amadeus VIII., who raised his country to a dukedom, and that of Victor Amadeus I., who raised the dukedom to a kingdom, as having contributed even more than they to the fortune of his dynasty, by raising a third-rate monarchy to the rank of a first-rate European power.

Humbert, the progenitor of the race, was one of the most gallant warriors of

the early part of the eleventh century, and the territories he received from the Emperor Conrad were the reward of long and valuable services. His son Otto married, in 1044, Adelaide, Countess of Susa, daughter and heiress of Manfred, Count of Turin and Marquis of Italy; and by this marriage acquired for his house a great accession of power and territory. The House of Savoy, like that of Austria, has been singularly fortunate in its matrimonial alliances. Guichenon gives a list of forty royal or ducal houses who have contracted alliances with it. "There are," he says, "few sovereign houses in Christendom who have not descendants from the illustrious stock of Savoy. Six Kings of Portugal have descended from it; six emperors of the East; seven Kings of England; four Kings of Arragon, three of Sicily, four of Castile; six Dukes of Bavaria; three Dukes of Milan, and five Dukes of Ferrara." But, to a native of this country, one of the most interesting parts of the history of the Counts of Savoy is that which relates to the close connection which they for a long time maintained with the Royal House of England. In 1236, Eleanor, granddaughter of Count Thomas I., praised by the old chroniclers as a princess of marvelous beauty, married Henry III., of England; while her sister was wedded to his brother Richard Earl of Cornwall, afterward elected Emperor of Germany.* For the accommodation of his numerous relatives belonging to the House of Savoy, Henry built the palace in the Strand known as the "Savoy," the last relics of which, with the exception of the chapel, were pulled down in 1816, at the time of the construction of Waterloo Bridge. Many adventurers from Savoy intermarried with the richest heiresses in England, thus — according to Matthew Paris — contaminating the best blood in the kingdom by "the admixture of the impure dregs of aliens." The names of several of these Savoyard gentlemen

* The two remaining granddaughters of Count Thomas were married, the one to Louis IX., King of France, and the other to his brother Charles of Anjou, afterward King of Naples; so that this whole family of Savoyard Princesses attained the royal dignity by their fortunate marriages. Beatrice, the wife of Charles of Anjou, had three granddaughters, of whom two were Queens and one an Empress; and Guichenon tells us that from her were descended seven Kings of France, seven Kings of England, three Kings of Sicily, and six Kings or Queens of Hungary and Poland.

are perpetuated in existing families; for example, in Grandison, Fletcher, and Butler—originally Grandson, Butiller, and La Flechière. The Savoyards of these days were among the most gallant knights in Europe, and full of the chivalrous extravagance of the age. On his first arrival in England, Peter II., with fifteen Savoyard and Vaudois knights, proposed to hold the lists at Northampton against the whole chivalry of England. Henry III. was prodigal of his favor to this Count Peter, conferring on him the manor of Richmond and the earldom of Essex, and furnishing him with large sums of money to enable him to prosecute his ambitious designs in Savoy and Switzerland. For a long time the alliance between England and Savoy continued unbroken; but the Counts at length, seduced by the pressing instances of the French Kings, espoused the cause of France, and often fought in her quarrel against their former friends. Thus, at the siege of Bruckberg, toward the close of the fourteenth century, Amadeus VII., surnamed the Red Count, during a tournament held before the walls of the place, is said to have defeated the Earl of Huntingdon with the lance, and the Earls of Arundel and Pembroke with sword and battle ax.

One of the most glorious names in the history of the Counts of Savoy is that of Amadeus V., surnamed the Great, (1285–1323.) Like several of his predecessors, he was upon intimate terms with the royal family of England, and was employed in important negotiations between the Kings of England and France. He was present at the marriage of Edward II. with Isabella of Valois, and also at Edward's coronation. He was a firm adherent of the Emperor of Germany, and received from him many marks of distinction and regard. His most famous exploit was his expedition to Rhodes, to aid the knights of St. John against the infidels—an expedition, however, which belongs rather to the domain of romance than to that of history. But it is peculiarly dear to the chroniclers of his house, according to whom, Amadeus conducted in 1316, a powerful armament to Rhodes, then beleaguered by the Turks, and compelled them to raise the siege. During this expedition, he is said to have substituted a white cross on a red shield for the imperial eagle, the original cognizance of the House of Savoy, and to have adopted

for his motto the mysterious device F. E. R. T., interpreted by the chroniclers to mean "Fortitudo ejus Rhodum tenuit"—his valor saved Rhodes. In the reign of Count Aymon the Pacific began the long wars between England and France—arising out of the claims of Edward III. to the French crown, in right of his mother Isabella of Valois—which lasted, with brief intervals of peace, for one hundred years. During these wars, Count Aymon, in spite of the long and close alliance of his family with England, yielded to the pressing solicitations of the French king, and joined him in Flanders, at the head of a noble train of knights and men-at-arms. He was afterward one of the deputies on the part of France for concluding peace with England.

Our limits allow us only to allude to the reign of Amadeus VI., called, from the color of his armor, the Green Count, one of the most brilliant knights of the fourteenth century, among whose gallant exploits the rescue of the Greek Emperor, John Palæologus, stands conspicuous. Under his successor, Amadeus VII., "the Red Count," another chivalrous knight, the towns of Nice and Barcelonette were added to the dominions of the family. This count fell a victim, in his thirtieth year, to the nostrums of a Bohemian quack, named John of Granville, who had promised to give him a luxuriant head of hair and a florid complexion.

We now come to the reign of Amadeus VIII., the last of the counts and first of the dukes; under whom, after long wars and protracted negotiations, Savoy and Piedmont were firmly united into one state. Amadeus deserves to be considered one of the three greatest princes of Savoy—the others being Emmanuel-Philibert (1553–1580) and Victor-Amadeus II. (1675–1730.) His career was most varied and remarkable. He died in 1451; having ruled Savoy as count and duke for forty years; having held the papedom for nine, though a layman, a widower, and the father of nine children; and having been first cardinal and legate of the Holy See for eighteen months. In 1413, Amadeus entertained the Emperor Sigismund with splendid hospitality, on his passage into Italy; and, in requital, the Emperor elevated him in 1416 to the rank of duke. It was during this fifteenth century, which witnessed the elevation of Savoy from a county to a duchy, that her princes found

their plans of aggrandizement arrested—on the north-west by the increasing power of the great French monarchy, and on the north-east, by the formation of the Swiss confederacy. They therefore, with the astute policy characteristic of their race, determined for the future to aim at the gradual acquisition of Lombardy, which still remained open to them, and which one of their number compared to “an artichoke which the House of Savoy was to have leaf by leaf.”

In 1434, Amadeus VIII. formed the singular resolution of abdicating the throne, which he carried into execution by retiring to the Hermitage of Ripaille, near Geneva, accompanied by six gentlemen of his household, whom he afterward constituted into the order of chivalry of St. Maurice, the patron saint of Savoy. He appointed his eldest son guardian of his states, and gave himself up to study and devotion in his chosen retreat. But he was again destined to fill a prominent place in the eye of the world; for in 1439, the Council of Basle deposed Pope Eugenius IV., and elected Amadeus Pope in his stead. It has been said that their reason for this extraordinary proceeding was, that Amadeus, having one foot in Italy and the other in France, might be of great service to the Church in the critical state of the times. The coronation of the new Pope was celebrated at Basle with great magnificence in the presence of more than fifty thousand spectators. He assumed the name of Felix V. Pope Eugenius, however, did not submit to the decision of the Council which deposed him, but maintained his place at Rome; thus causing a schism in the Church, which lasted nine years. On the death of Eugenius, his partisans elected Nicolas V. as his successor. At length a council met at Lyons to put an end to the schism; and on the joint representations of the ambassadors of England, France, and Sicily, Amadeus was induced to resign the papacy. This he did on very favorable conditions, being created Cardinal of St. Sabina, and appointed Apostolic Legate in Upper Italy. Pope Nicolas also, by various bulls, confirmed all that he had done during his pontificate. Under Amadeus VIII., Savoy was one of the most powerful of the Italian states, and could bring eight thousand men-at-arms into the field, at a period when the utmost force of

France or England did not amount to more than thirty thousand.

The ducal period of the history of the House of Savoy extends from the reign of Amadeus VIII. to the peace of Utrecht in 1713, when the important acquisition of the fair island of Sicily changed the ducal coronet of Victor Amadeus into a kingly diadem. It was during this period that the long wars between Austria and France, for supremacy in the Italian peninsula, began to make the position of the princes of Savoy between the two contending parties critical and dangerous; and forced upon them an ever-varying and shifting policy, in order to preserve the national existence of their country. As the Prince de Ligne remarked of them, with equal wit and truth: “Geography hardly allowed them to behave like honest men.” During the reign of Duke Louis there was war with Charles VII. of France, which lasted for thirteen years, when it was ended by the submission of the Duke, who had provoked it by an unjustifiable invasion of the French province of Dauphiny. In this reign the dominions of the House of Savoy were declared inalienable by solemn edict, like those of the crown of France. The recent cession of Nice and Savoy furnishes a sad commentary on the inefficiency of all such declarations, where there is on one side want of strength to maintain them, and, on the other, strength, ambition, and utter want of principle.

The acquisition of the kingdom of Cyprus forms a curious episode in the history of this family. Louis II., son of the first duke of that name, and grandson of Amadeus VIII., married Charlotte, daughter and heiress of John, King of Cyprus, who died in 1458; and, shortly after his decease, his daughter and her husband were solemnly crowned at Nicosia, the capital of the island, as King and Queen of Cyprus, Jerusalem, and Armenia—high-sounding titles, which the lapse of a few years resolved into mere words. The title of the new sovereigns was disputed by James, a natural son of the last king; who, by the assistance of the Soldan of Egypt, was enabled to land in Cyprus at the head of a strong force, with which he carried all before him, and compelled Louis of Savoy and his queen to fly from the island. In 1470, the vic-

torious bastard, then absolute master in Cyprus, married Catherine Cornaro, daughter of Mark Cornaro, a Venetian gentleman; and the fair Catherine was thereupon adopted, by the wily and unscrupulous republic of Venice, as a daughter of St. Mark. In 1473, the bastard died, as was generally supposed, of poison administered by the agents of the republic; and the Venetian government lost no time in sending an army into Cyprus, and proclaiming Catherine regent of the island. After the death of her husband she gave birth to a child, who lived only two years and three months, but was proclaimed King of Cyprus, and named James, after his father. His premature death, like that of his father, was generally imputed to the Venetian republic. His two uncles, who might have been in the way, assuredly died in a Venetian prison; and the republic, having procured from Catherine a cession of her rights to the kingdom of Cyprus, immediately removed her from the island, and assigned her the castle of Azzola, in the Trevisan, as her place of residence, where she was entirely in their power. They then seized upon, or, in the politer phrase of the present day, annexed Cyprus, to the prejudice of the only lawful heir, Charles, Duke of Savoy, nephew of Queen Charlotte, daughter of John, the last legitimate king of the island. She died in 1487; and with her expired the illustrious family of Lusignan, who had swayed the scepter of Cyprus for three hundred years. A few years before her death, however, in the church of St. Peter at Rome, she made a solemn donation of the kingdom of Cyprus to her nephew Charles, "to him and his successors, Dukes of Savoy;" so that the present King of Italy has a plausible political title to one of the fairest portions of the Sultan of Turkey's insular dominions—at least, a much worse one has often served as a pretext for annexation. It is impossible, at this distance of time, to decide whether the Venetian government were really guilty of all the crimes imputed to them. Poisoning in Italy at that era was nearly as common as cooking; the persons removed undoubtedly stood between the Venetian government and a rich inheritance; and, remembering the annals of the republic, we can scarcely believe that the Venetian oligarchs would shrink from any scheme of

political aggrandizement, merely because it led them through the paths of crime.

In the reign of Duke Charles III., surnamed the Good, Savoy and Piedmont suffered terribly from the ravages of the French and Imperialists during the long and bloody wars between Francis I. and his great rival Charles V. Duke Charles was one of the few princes of his race both physically and intellectually weak; and during his reign, of nearly half a century, the power of the House of Savoy was so greatly reduced, that at the period of his death, in 1553, Piedmont was in the possession of the Austrians, and Savoy in the hands of the French; while he himself, of all the dominions of his house, retained only the town and castle of Nice, and a few places of minor importance. Indeed, but for the heroic resistance of the Nizzards, their Duke would not have had a foot of territory or a place of refuge left to him. In 1538, the garrison held out against Pope, King, and Emperor; and refused to deliver up the citadel even on the mandate of the weak Duke himself, willing as he was to have placed it in the hands of the Emperor and the Pope, who had undertaken to act as his mediators with the French monarch. In 1543, Nice again made a gallant defense against the lilies of France and the Turkish crescent, united under the Duke d'Enghien and the famous corsair Barbarossa, the scourge of the Mediterranean. The French armament consisted of forty ships, and seven thousand land troops; while Barbarossa had one hundred and fifty-two vessels, and fifteen thousand soldiers. But the town and castle were defended by men worthy of the occasion, and well fitted to make good the last stronghold of the House of Savoy. Their commander, when summoned to surrender, returned as his only reply: "My name is Montfort, and my motto, 'Il me faut tenir.'" Around this gallant leader was a chosen band of the chivalry of Piedmont and Savoy, many of whom had fought bravely against the infidels as knights of St. John at Rhodes. On the fifteenth of August, after a terrific cannonade which had lasted for five days, the Turks stormed one of the bastions and planted on it the banner of the crescent. But the sight of the infidel flag on the battlements of their town drove the inhabitants to fury; they rushed to the rescue, headed by a heroine named Catherine Sigurana, whose ax

struck down standard and standard-bearer; and after a desperate conflict, drove the assailants in rout and confusion from the blood-stained ramparts. On the twentieth, however, the town was compelled to capitulate; but the inhabitants withdrew into the citadel, taking with them all their valuables, and even the bells from the church-steeple. The besiegers then directed all their efforts to the reduction of the citadel; but it held out nobly until the month of September, when the approach of Andrea Doria by sea, and Duke Charles and the Imperialists by land, compelled the French and their infidel allies to beat a hasty retreat.

On the death of Duke Charles, in 1553, the lustre of the star of Savoy seemed almost extinguished. But better days were at hand. To the weak Charles succeeded Emmanuel-Philibert, his eldest son, the greatest prince of his race, equally accomplished in peace and war, the strongest hand and the clearest head in Europe. He was born at Chambéry, the capital of Savoy, in July, 1528; and his future greatness is said to have been predicted even before his birth, for Duke Charles, and his wife Marguerite of France, having gone to consult the celebrated astrologer Nostradamus, then at the height of his prophetic fame, in order to ascertain the sex of the child about to be born to the Duchess, received the response that she would have a male child, who would become the greatest captain of his age. When the treaty of Nice, in 1544, dispossessed his father of the greater part of his dominions, Emmanuel-Philibert, then only seventeen years old, determined to quit his oppressed and down-trodden country, and learn the art of war under his relative Charles V. He early displayed all those qualities which constitute the character of a great captain; and as these became developed by experience and opportunity, he soon rose to the highest military rank. He remained a steady adherent of the imperial cause—which was indebted to his valor and genius for some of its most brilliant triumphs—and never suffered himself to be seduced by the tempting offers repeatedly addressed to him by the King of France. At the time when the succession of the dukedom of Savoy opened to him, he inherited little more than a barren title. All that remained to him of Savoy and Piedmont, were the towns of

Nice, Coni, Fossano, and Cherasco, and the territories of Aosta and Asti. Under these circumstances, he determined to go where he could increase his influence with the Emperor and the King of France, who might justly be considered as the arbiters of his destiny. He hoped to procure important advantages from the gratitude of the one for the services of so great a captain, and from the fears of the other for the hostility of so dangerous an enemy. Nor was he disappointed, though he had long to wait. Charles V. was much attached to Emmanuel-Philibert, and had the highest opinion of his abilities; so much so, that when he abdicated his throne in 1556, he strongly recommended his son and successor, Philip II., to listen to his counsels and avail himself of his remarkable military genius. The event proved the wisdom of this advice. In 1557, Emmanuel-Philibert won for Spain the great victory of St. Quentin; and, had his advice been followed by Philip, who repaired to his camp immediately after the battle, the victorious Spaniards would have abandoned the siege of St. Quentin, and marched straight upon Paris, before the French had time to recover from the shock of the terrible defeat which they had sustained. But Philip II. was a very different man from his great father. To all the instances of the Prince of Savoy he replied, "That it was bad policy to push a vanquished foe to extremity," and so allowed the golden opportunity to pass away. How differently Charles V. would have acted, may be gathered from his conduct on receiving the dispatch containing the account of the battle of St. Quentin. Before he had half read it, he paused, and—turning to the messenger—eagerly inquired, "Is my son at Paris?" and, on being answered in the negative, instantly retired into his cabinet, without deigning to cast another glance on the narrative of the great victory so ill-improved. The war between Spain and France still continued with varying fortune—the Duke of Savoy being successful wherever he commanded, and the other Spanish general being as constantly beaten—until 1559, when it was put an end to by the Treaty of Chateau-Cambresis, which restored the Duke of Savoy to his dominions, and bestowed on him the hand of Marguerite of France, sister to King Henry II. The French and Imperialists, how-

ever, still retained possession of many important towns in Piedmont and Savoy, which were not entirely freed from foreign occupation until 1574.

When Emmanuel-Philibert returned to his ancestral dominions, from which he had been absent for fourteen years, he found them in a deplorable state of disorder and exhaustion, the results of twenty-five years of hostile occupation; and it is the proudest achievement of his great career, that, by his talents as economist, legislator, and reformer, he raised them from that state of humiliation, and restored them to more than their former social well-being and political importance. He also granted greater liberty of conscience and worship to his subjects than they had ever before enjoyed; and, in spite of the pressing representations that were made to him, would never consent to withdraw the freedom of serving God in their own way, which he had accorded to the professors of the Reformed religion. Throughout his dominions he found the country devastated and the roads destroyed; industry and capital alike fled; the population so reduced, as to be unable to furnish an army for their own defense, or taxes sufficient to defray the cost of government, and entirely dependent on a nobility bought over by foreign gold; the frontiers uncovered, the towns in ruin, respect for the laws and the sovereign enfeebled or forgotten, and the civil and criminal administration of justice extinct. Far from being dismayed by such a complication of evils, he only set himself the more vigorously to cure them, with that iron strength of purpose which marked his character. He abolished the old States-General which used to assemble in every town under the direction of the nobility, and retained only those of Chambéry and Turin, the capitals of Savoy and Piedmont. He appointed a commission, composed of the most eminent jurists, to revise and codify the laws of the realm. He introduced the cultivation of the mulberry and the manufacture of silk. He opened up roads and harbors. He repaired the towns that had suffered during the war, and fortified the passes and frontiers. He established a magnificent hospital at Turin. He furnished the prototype of the national guard of the nineteenth century, by the foundation of what was then

termed, the national militia, which consisted of upward of thirty thousand well-trained citizens; and he also laid the foundation of the navy of Savoy, which took part during his reign in the glorious battle of Lepanto, that gave so terrible a blow to the naval power of the Ottoman Empire. All these improvements were equally well planned and successfully carried out. And such was the beneficial result of his efforts to restore and elevate his country, that the revenue, which on his return to his dominions had dwindled down to two hundred thousand crowns per annum, had risen, twenty years later, to eight hundred thousand. The nationalization of Piedmont, by fixing the seat of government at Turin, was one of the most important acts of this reign. The Italian language was now also substituted for the Latin in public acts, except in Savoy, where French was allowed to be used. All pretensions to Geneva were finally abandoned; and the rulers of Savoy, having fixed themselves at Turin, felt that they were for the future Italian princes.

Emmanuel-Philibert finished his useful and glorious life in 1580, at the early age of fifty-two. His personal character and habits have been minutely described by cotemporary historians. He was somewhat below the middle stature, but with broad shoulders, and a frame inured to hardships by early military training. He had a small, round, compact head—he was surnamed “Iron-head”—fair curling hair, short thick beard, and gray eyes. No man had a firmer or more graceful seat in the saddle, or greater power of enduring fatigue. None had manners more courteous or word more sacred. He allowed himself only five hours for sleep, and kept a strict account of his time; spoke fluently five languages—Italian, French, Flemish, German, and Spanish—and was so fastidious or self-reliant, that he carried on his extensive correspondence unaided, although he had three secretaries in his pay.

During the long reign of Charles Emmanuel I., the son and successor of Emmanuel-Philibert, there were almost constant wars with Geneva, Montserrat, Genoa, and France. He was an able and ambitious prince, and an accomplished general, but somewhat rash in his schemes, and always unable to confine his undertakings within the limits of his

resources. At one period, his designs upon Lombardy seemed likely to be crowned with success. By the Treaty of Brussol, 25th April, 1610, it was agreed between him and Henry IV. of France, that they should unite their forces to drive the Spaniards from the Italian peninsula; that the Duke of Mantua should exchange the province of Casal for that of Cremona; that the Milanese and Montserrat should be united to Piedmont; that Victor Emmanuel should receive the crown of the ancient realm of Lombardy, thus reconstituted; that Henry should give his daughter in marriage to Victor Amadeus, Prince of Piedmont; and that the King of France, the Pope, and the Republic of Venice should guarantee to the Duke of Savoy the title of King of Lombardy. But this promising scheme was rudely dashed to the ground by the assassination of Henry IV., who perished under the dagger of Ravallac the month after the conclusion of the Treaty of Brussol. Charles Emmanuel died in his camp in 1630, while engaged in making war against France; and at his death the greater number of the towns and fortresses in Savoy and in Upper Piedmont were in the possession of French troops.

Under the reign of his son and successor, Victor Amadeus I., there was an alliance with France; and the politic Cardinal Richelieu, bent on breaking the power of the House of Hapsburg, dazzled the eyes of the Piedmontese Prince by the promise of the crown of Lombardy. He offered to revive the Treaty of Brussol, but coupled it with the condition that Piedmont, on receiving Lombardy, should cede Savoy to France. So that France seems to have had her eyes fixed on Savoy nearly as long as those of Piedmont have been fixed on Lombardy.

The armies of Louis XIV. overran, and for some time kept possession of, Savoy; and he had, at one period, three Piedmontese regiments fighting under the French standard in Flanders. He also compelled the Duke of Savoy to imitate his persecuting and short-sighted policy toward his Protestant subjects, and to exterminate or expel them from their homes among the valleys of the Alps. In 1690, Victor Amadeus II., who chafed under this degrading thralldom, and longed to emancipate himself from the yoke of France, joined the League of Augsburg

against Louis XIV., and, in the course of the wars which followed, his territories were repeatedly invaded and ravaged by the superior armies of France. His strongholds were destroyed or captured, and his towns occupied, till at last he was reduced to as great straits as his ancestor, Charles the Good, and had nothing left to him but Coni and Turin. In 1706, the latter was besieged by an army of sixty thousand Frenchmen, with two hundred pieces of artillery. To resist this overwhelming force, there was but a scanty garrison of nineteen regiments of regular troops. But these were relieved and assisted by seven companies of armed citizens, while a band of three hundred women, and even the poor from the almshouses, and the convalescents in the hospitals, joined in the defense. The invaders experienced a desperate resistance, and the defense was signalized by many instances of heroism and self-devotion. Victor Amadeus himself was always at the post of danger, and his courage, coolness, and inspiring words did much to cheer and animate the courage of his people. Three terrible assaults were made upon the town, whose walls and bastions had crumbled under the long cannonade, and whose defenders were thinned by the sword, and worn out by watching and fatigue. The last and most desperate of these was repelled with extreme difficulty, and was illustrated by an example of heroism worthy of the best days of antiquity. Pierre Mica, a private in the corps of engineers, observing a party of French troops about to discover a mine, called out to his comrades to retire, and, as soon as he found himself alone, applied the lighted match, and perished in the ruins along with the whole of the hostile detachment. But succor came at length to the beleaguered and exhausted defenders. The brave Eugene of Savoy, the ally of Marlborough, and cousin to Duke Amadeus, arrived before Turin in the beginning of September, at the head of a gallant army of forty thousand Imperialists. Under the combined attack of Prince Eugene and the Duke of Savoy, the French were entirely defeated; eight thousand lay dead on the battle-field, and a great number were made prisoners. The whole of Piedmont was speedily restored to its Duke. In many of the towns the populace rose against the French garrisons, as soon as they heard

of the great victory of their Prince, and expelled them. The invaders themselves voluntarily evacuated some of the strongest fortresses, glad to escape with their lives to their own country. Scarcely a half of the magnificent army that had encamped before Turin survived to recross the French frontier.

Peace was restored to Piedmont by the Treaty of Utrecht, 31st March, 1713. "The first peace," says the Princess Belgiojoso, "concluded between France and Austria, in which the House of Savoy was not sacrificed." That treaty elevated the Dukes of Savoy to the rank of kings, by bestowing on them the rich island of Sicily, in whose beautiful capital Victor Amadeus and his wife, Anne of Orleans, were solemnly crowned in December, 1713. Queen Anne was the daughter of Philip Duke of Orleans, and Henrietta Anne, of England, daughter of the unfortunate Charles I. Sicily did not long remain in the possession of its new masters. In the summer of 1718, an imposing Spanish fleet appeared off the coasts of the island, and landed an army of fifty thousand men, who in a short time made themselves masters of the whole country, expelling the Marquis Maffei, lieutenant of Victor Amadeus, who with difficulty succeeded in extricating the Piedmontese fleet from the overwhelming force of the Spaniards. In 1720, peace was restored by the quadruple alliance. Spain gave up Sardinia and Sicily, and received the reversion of Tuscany, Parma, and Piacenza; while Amadeus was compelled to cede Sicily to Austria, obtaining in exchange the paltry and inadequate compensation of the island of Sardinia.

Subsequently to this period, we behold almost the whole Italian peninsula, prostrate and helpless, beneath the iron heel of Austria, Piedmont alone preserving a firm and independent attitude. By a rare combination of sagacity and valor on the part of her sovereign, who had beaten the best generals of his day on the battle-field, and the wisest statesmen in the cabinet, she had acquired important acquisitions of territory, and had emerged from nearly a century and a half of warfare with renovated vitality and increased resources. We can not do more than advert in passing to the wise reforms, social and administrative, which Victor Amadeus introduced into his dominions, and to his long quarrel with the See of Rome, whose cen-

tures he set at naught, and whose ecclesiastical thunders he despised, causing all the churches to be opened and divine service to be celebrated as usual, while his kingdom was lying under an interdict, and he himself was excommunicated. He showed equal firmness in his contest with the Jesuits, whom he removed from all the offices which they held in the various educational institutions throughout the kingdom of Sardinia. According to Voltaire, he was the first royal personage who emancipated his conscience from Jesuit control—a wise and bold measure, which he was led to adopt in consequence of a conversation which is said to have taken place at the death-bed of his Jesuit confessor. The dying man requested the Prince to send every one out of the room; and, when they were left alone, thus addressed him: "Grateful for all the kindness I have experienced at your hands, I can not show my gratitude more strongly than by giving you one parting counsel, so valuable that it will discharge my debt of kindness toward you. Never have a Jesuit for a confessor. Ask me not the motives for this counsel, for it is not permitted to me to disclose them."

Among the social benefits which Sardinia owed to Amadeus, we may reckon the abolition of the system of feudality; the improvement of the public finances; the foundation of an Hotel des Invalides for his army; the establishment of a board of health; the creation of public archives; the codification of the laws of Savoy in the three volumes termed the Victorian Code; and the reconstitution and enlargement of the University of Turin.

There is no more melancholy narrative in history than that of the abdication and death of this great monarch. When upward of sixty years old, he married his mistress, the Countess of Saint Sebastian, and soon afterward, by a solemn and public ceremonial, abdicated the throne in favor of his son Charles Emmanuel I. He reserved to himself a revenue of fifty thousand crowns, and left Turin to reside at Chambéry along with his wife, on whom he had conferred the marquisate of Spino. Matters, for some time, went on smoothly enough. The old King seemed contented in his retirement, and the young monarch was actively and successfully engaged in discharging the important duties which had devolved upon him. But this did not last long. The wife for whom Victor

Amadeus had sacrificed so much was a proud and ambitious woman, who was discontented with her private position, and left no means untried to induce him to adopt violent measures for the recovery of the kingly power, which he had voluntarily and solemnly resigned. For a time, her efforts were unsuccessful. But a shock of apoplexy, which greatly shattered the health and impaired the self-control of the old King, assisted her designs, and increased her ascendancy, so that she was at length able to persuade him to attempt to resume the reins of government. A time was fixed for the execution of this scheme during the absence of the young King from Turin; and, but for the accidental circumstance of a priest's overhearing part of a conversation between the ambitious Marchioness and her husband, and reporting it immediately to the young monarch, the whole kingdom might have been distracted by an unnatural civil war between father and son. This, however, was prevented by the promptitude of the measures of Charles Emmanuel. He instantly left Evian, where he had been residing when the news of his father's intentions reached him, and hastened to Turin, where he arrived just as the old King had entered the neighboring castle of Rivoli. An interview, which subsequently took place between the father and son, was productive of no good results; and soon afterward, Victor Amadeus demanded from the Marquis del Borgo the surrender of the act of abdication, which, but a year before, he had placed in his hands. With this demand, the Marquis, fearing to increase the violence of the old King, promised compliance, but lost no time in informing Charles Emmanuel of what had taken place. A few hours after this interview with the Marquis del Borgo, Victor Amadeus mounted his horse, and, followed by a single attendant, presented himself at the gates of the citadel of Turin, and demanded that they should be opened to him. This was, however, refused by the commandant, who represented that he had been placed there by Charles Emmanuel, and could admit no one without his express orders. This reply convinced Victor Amadeus that his intended *coup de main* had failed, and he lost no time in retiring to the castle of Moncalieri. Meanwhile Charles Emmanuel asked the advice of his courtiers, and the magistrates and

clergy of Turin. Yielding to their representations and advice, the young King, after long hesitation, and with unfeigned reluctance, signed the order for his father's arrest. The castle of Moncalieri was surrounded, and Victor Amadeus and the Marchioness surprised in bed. The latter—the authoress of their unnatural conflict—was seized and sent under a strong guard to the castle of Cena, while the old King was conveyed to that of Rivoli, where he was closely watched, subjected to considerable restraints and privations, and guarded by a force of six hundred men. During the earlier part of his confinement, he was liable to sudden transports of fury, during which the utmost precautions were necessary to prevent him from destroying his own life. Afterward he became calmer; and as his fits of fury abated in violence, the rigor of his captivity was relaxed, and he was allowed books, papers, and the company of the Marchioness. Latterly, he was removed to the castle of Moncalieri, where he died on the thirty-first October, 1732. Thus perished, in sadness and captivity, Victor Amadeus, the first and greatest King of Sardinia, whom Sismondi truly terms “the ablest, most warlike, and most ambitious monarch of his age.” He was buried in the magnificent church of the Superga, which he himself had built on the highest summit of a hill near Turin, in fulfillment of a vow he had made, as he stood there beside his cousin Prince Eugene, and concerted the plan of operations which resulted in the total defeat of the French army, and the rescue of the metropolis of Piedmont. Little thought the triumphant victor of that great day of battle, that a few years later he should be fretting away his soul in sorrow and hopeless captivity, a prisoner in one of his own castles, with his own son for his jailer.

Several years of the long reign of Charles Emmanuel I. (1730–1773) were occupied by the wars of the Polish and Austrian succession. But from the close of the latter in 1748, by the peace of Aix-la-Chapelle, down to 1792, there was, for Italy and Piedmont, a period of forty-four years of profound and uninterrupted peace. Between 1792 and 1814, however, the star of Piedmont suffered an eclipse. During the wars with republican France, from 1792 to 1796, Savoy and Nice were conquered; but the French

formed so high an opinion of Piedmontese valor, that, during the negotiations which preceded the peace of Paris, they offered Lombardy to King Victor Amadeus II., on condition that he would assist them in its conquest with a detachment of his troops; and Bonaparte strongly recommended the Directory to purchase, on any reasonable terms, the alliance of the King of Sardinia, as his excellent troops might prove of great assistance to France. The reign of Charles Emmanuel II. opened amidst the momentous events that followed the great French Revolution. By the Treaty of Paris, the duchy of Savoy, and the counties of Nice, Tenda, and Breuil had been ceded in perpetuity to France. But this unfortunate monarch was destined to suffer still deeper humiliations at the hands of his powerful and unscrupulous neighbor than any which his predecessor had undergone. The conduct of the French republic toward him was marked by an almost incredible degree of baseness and perfidy. In 1798, a French garrison was admitted into the citadel of Turin, and Guingéné, the Republican ambassador, became the real king of Sardinia. Shortly afterward, strong bodies of French troops, under the command of Joubert, invaded Piedmont at various points; and, at the close of the year, Charles Emmanuel was compelled to sign an act resigning the government of his continental dominions into the hands of the French republic. Yet it was only after all these deeds of violence had been consummated, that the formal declaration of war by France was sent to Turin. The unfortunate King, thus perfidiously stripped of his territories, took refuge in the island of Sardinia; and from that period till the restoration of his brother and successor in 1814, the national history of Piedmont presents a mere blank. It was occupied by the French for sixteen years; and, in 1802, was parceled out into six departments, and formally annexed to France. In 1814, a Piedmontese contingent, in the pay of England, took the field under the ancient flag of Savoy; and in the summer of that year Victor Emmanuel I. sailed from Cagliari, landed at Genoa, and reentered Turin, where he was received by his enfranchised subjects with transports of enthusiasm. By the Treaty of Vienna, the House of Savoy obtained important

compensations for its long sufferings and humiliations, receiving Genoa and the Riviera, and the reversion of the succession to Parma and Piacenza. From this period dates the naturalization of Piedmont as an Italian state.

The reigns of Charles Emmanuel, Victor Emmanuel, and Charles Felix, the three sons of Victor Amadeus II., extend from 1796 to 1831. They were princes of but moderate abilities, and, terrified by their bitter experience of the effects of revolutionary principles, followed, on the whole, a retrograde system of policy. They all married, but none of them had issue. Two of them abdicated the throne. Charles Emmanuel renounced the crown in favor of his brother in June, 1802, and entered a Jesuit convent, where he died in October, 1819. Victor Emmanuel abdicated in 1821 in favor of his brother Charles Felix. If to these we add Charles Albert, who, after the abortive Italian revolution of 1848-9, abdicated in favor of the present king, we have the singular spectacle of three out of the four last monarchs of Piedmont abdicating from disappointment and hope deferred, or from the pressure of political circumstances. Charles Felix was the last sovereign of the main line; the last of thirty-eight generations of that princely race whose ashes slumber under the sepulchral monuments of the Abbey of Hautecombe,* and in the vaults of the beautiful church of the Superga. At his death the succession devolved upon his cousin Charles Albert, Prince of Carignan, in spite of the intrigues of Austria, who, suspecting Charles Albert of a leaning to liberalism, left no efforts untried to induce his predecessor to disinherit him, and bequeath the crown to the Duke of Modena, one of the worst rulers in Italy, but the son of a princess of Savoy, and—what was more to the purpose—an Austrian archduke. To Charles Albert, however, the crown of Sardinia proved but a crown of thorns. For more than fifteen years he was compelled to

* The Abbey of Hautecombe was founded by Count Amadeus III. in 1125. It stands in the very heart of Savoy, on the western bank of the Lake of Bourget, at the foot of the steep Mont du Chat. It is the Escurial of the House of Savoy, where rest the bodies of most of its princes. So that when Victor Emmanuel ceded Savoy to France, he abandoned not only the cradle, but the burial-place, of his race.

temporize and dissemble. The necessities of his position were too strong to permit him to follow the bent of his inclinations. He had to choose—as he himself expressed it—“between the chocolate of the Jesuits and the dagger of the Carbonari.” When such were the alternatives presented to him, we can scarcely wonder that he was in no hurry to make a choice. Soon after his accession to the throne, Mazzini commenced his calamitous career, and selected Savoy for the theater of his operations. Mazzini’s attempt upon the kingdom of Sardinia proved a total failure. He did, indeed, succeed in forming a fraction of a republican party. But Charles Albert—rallying around him the liberal-royalist party, which had always existed in Piedmont—easily crushed the nascent rebellion, and punished, with perhaps too great severity, those who had taken part in it.

During the three preceding reigns, the kingdom of Sardinia had made scarcely any progress in social and material civilization. The army was inefficient; education was entirely under the control of the Jesuits; and too much power was possessed by the nobility and clergy. Charles Albert clearly saw that nothing could be effected with a state so ill regulated and so imperfectly organized; he therefore devoted himself, firmly and patiently, to reform abuses, reconcile hostile factions, and, above all, to increase his army and bring it into a state of discipline and efficiency. His labors were ultimately crowned with success; and, after years of patient effort, he found himself at the head of a compact, thoroughly organized state, and of a well-disciplined army.

It is unnecessary here to detail the well-known circumstances which led to the Italian rising against the Austrians in 1848. For a time Charles Albert hesitated to identify himself with the party of action, and to declare war against Austria,* even after he had commenced a liberal policy in Sardinia, and granted many privileges to his people. He left the Milanese unaided for a time, after they had opened the revolution of 1848 by the memorable five days at Milan, where a half-armed and undisciplined populace, after a desperate and protracted struggle succeeded in driving out thirty thousand

regular soldiers in spite of every advantage of discipline, arms, and position. At length, however, he declared in favor of the national movement; and, crossing the Ticino, at the head of his army, commenced that campaign which, though successful in its opening, ended so fatally five months later. Want of union was, indeed, the great cause of the failure of the revolution of 1848–9. Turin distrusted Rome; Rome feared Turin; while the King of Naples was alike afraid of the aggrandisement of the House of Savoy and the increasing popularity of Pius IX. Austria was not slow to avail herself of these feelings of mutual jealousy and distrust, and her intrigues soon produced a rupture among the different members of the national league. Disunion once sown among the Italians, her triumph was assured. Victorious at Goito and Pastrengo, the King of Sardinia was defeated at Custoza and under the walls of Milan, and compelled to conclude a capitulation. In the spring of 1849, however, he again took the field, but with no better success. His army was imperfectly officered, and composed in part of half-disciplined Lombard volunteers, who were no match for the veteran battalions of Radetzky. At Mortara and La Bicocca the Austrians were victorious; and the terrible defeat of Novara—where ten thousand corpses strewn on the battle-field, attested the desperate nature of the strife—gave the finishing-blow to the revolution of 1849. On the twenty-third of March of that year, Charles Albert abdicated the throne of Sardinia, and retired to Lisbon, where he died some months afterward, in sorrow and exile, in his fifty-second year.

No sooner was the triumph of Austria secure, than she began to avenge herself for the alarm she had suffered, and the losses she had sustained. Every species of exaction, oppression, and cruelty was practiced in Northern Italy, and in the other parts of the peninsula subject to her control. In Lombardy, the forced contributions for 1849 amounted to one hundred and forty millions of livres, twenty-three millions being levied in Milan alone.* The storming and sack

* One of the most revolting instances of Austrian cruelty and oppression occurred in this city a few months after the defeat of the Italian revolution. On the eighteenth of August, 1849, the anniversary of the birth of the late Emperor of Austria, a courtesan of Milan, named Olivari, displayed an Austrian

• Guerrieri, *L’Austria e la Lombardia*.

of Brescia, by the orders of Haynau, where one fourth of the population was butchered after all resistance had ceased; the massacre at Leghorn by the troops of General Aspre; and the judicial tortures and murders by Austrian military tribunals at Bologna and Ferrara in 1853-4—are a few, out of many, examples of the reign of terror by which Austria sought to compel the Italians to bow to her yoke. Indeed, it may safely be affirmed, that from 1849 to 1859 a state of siege was the permanent condition of the whole of Austrian Italy. It was in the midst of such reverses and disasters, amidst the prostration of liberty and the triumph of despotism, that the present monarch of Italy succeeded to the throne of Sardinia. Immediately after his accession, he gave a noble proof of that sincerity and truthfulness which so eminently mark his character. Marshal Radetzky, in treating for the ransom of Piedmont, offered to the young King, then only twenty-nine years of age, to withdraw the Austrian troops, and to forego all the results of his victories, on condition that he would consent to abolish the constitution (*statuto fondamentale*) of Charles Albert; to which the youthful monarch made the memorable reply: "Our race knows the path of exile, but not that of dishonor!" This noble answer cost him sixty millions of francs.

The following brilliant though perhaps

flag from the balcony of her house. This was hissed by the crowd; upon which a number of Austrian soldiers rushed out from the adjacent cafés, and seizing promiscuously on several passers-by, hurried them off to the castle, where they were tried by a military tribunal, and condemned, seventeen to the bastinado, from twenty five to fifty strokes each, and three to various periods of imprisonment. The floggings were immediately inflicted in the court-yard of the castle, in the presence of a number of Austrian officers, who jeered at the sufferings of the helpless Italians. Among those who suffered this degrading punishment, were two young female opera-singers—Ernesta Galli, of Cremona, and Maria Conti, of Florence, the former aged twenty, and the latter eighteen years. They received, the one forty, and the other thirty lashes, and were a long time in recovering from the effects of the brutal treatment to which they had been subjected. The military commandant of Milan subsequently sent in an account of one hundred and ninety-one francs to the municipality of the town, "for the expense of ice" (applied to the mangled flesh of the victims in order to prevent gangrene) "and of rods used and broken in the punishment of the seditious of the eighteenth of August." Finally, Marshal Radetzky ordered the town to indemnify the courtesan Olivari by a gift of thirty thousand livres. (*Les Autrichiens et L'Italie*, par C. de la Varenne, troisième édition, Paris, 1859.)

somewhat highly-colored picture of the subsequent conduct of the King of Sardinia, and his great minister Count Camillo Cavour, is drawn by the Princess Belgiojoso:

"During the ten years between 1849 and 1859, Victor Emmanuel followed loyally and conscientiously the path traced out for him by the constitution, thus showing himself to Italy as the liberal sovereign who offered her, under the shelter of his throne, a glorious future of independence, concord, and greatness. The firm character and enlightened intelligence of the monarch, however, could not accomplish in ten years the mighty work which we to-day admire. It was Providence, therefore, that placed beside that King so loyal, so brave, and so tenderly beloved a minister, who can not be compared to any of those to whom history has accorded the most splendid eulogies. He surpasses them all: some, by the grandeur of his thoughts and the extent of his views; others, by the purity of the means which he employs; all, or nearly all indeed, by disinterestedness and abnegation. Victor Emmanuel, seconded by Count Camillo Cavour, has, during these ten years, restored to Piedmont the prosperity of which the preceding disasters had deprived her. They have opened roads; undertaken the gigantic work of piercing the Alps; encouraged agriculture, commerce, and industry; fortified, according to the most approved rules of modern science, the chief cities; increased the staff of the army, and improved its discipline, its instruction, and its equipment. They have triumphed over party extremes, and have molded the Piedmontese into a compact nation, liberal and monarchical, knowing their rights and their duties, attached to their king and their institutions, and ready to sacrifice every thing in their defense. They have convinced the great majority of the Italians that there can be for them neither independence nor liberty, nor any of the innumerable blessings that flow from them, except by confiding their destinies to the House of Savoy, by rallying around it, forgetful of all municipal jealousy, all provincial or state rivalry, by refusing all special denominations of Lombards, Venetians, or Tuscans, in order to accept that of Italians, and to constitute themselves into an Italian nation, under the scepter of the loyal and gallant soldier-king. Victor Emmanuel and Count Cavour have done yet more: they have secured the strict alliance of France, and the assistance of her army."

During the Italian revolution of 1848-9, the nobles, the middle classes, and a portion of the clergy were at the head of the movement, while the mass of the people took comparatively little interest in it. But ten years longer of Austrian domination had, in 1859, united all classes in a common hatred of their oppressors. In the beginning of that year, all was pre-

pared for a fresh struggle for Italian independence. The efforts of General La Marmora, and the dear-bought experience of the Crimean war—which cost Sardinia four thousand men and fifty millions of francs—had disciplined and hardened the Piedmontese army; while Lombardy and the provinces of Central Italy wanted but the signal to rise in arms. The Sardinian parliament met on the tenth of January, and was opened by Victor Emmanuel in a speech, which, though guarded in its terms, sounded not unlike a challenge to Austria and a summons to Italy. "Our country," he said, "small in point of territory, has increased in weight in the councils of Europe, because it is great by the ideas it represents and the sympathies it inspires. Such a position is not free from dangers; because, though we respect treaties, we are not, on the other hand, insensible to the cries of grief which are directed toward us from so many parts of Italy." The actual signal for the commencement of hostilities was not, however, given by the Sardinians, but by the Austrians, who committed the foolish and fatal blunder of crossing the Ticino and invading Piedmont in April, 1859. This brought the armies of France upon the scene; and Lombardy became again, what she has been for two thousand years, the battle-ground of nations. The subsequent events of that war—the battles of Montebello, Palestro, Magenta, Malegnano, and Solferino—the sudden and mysterious peace of Villafranca, which gave the lie to the declaration that Italy should be free from the Alps to the Adriatic—the determined and spontaneous movement by which the people of the Duchies, Tuscany, and the Legations, repudiated the arrangements of that peace, and united themselves to the constitutional monarchy of Sardinia—the exploits of Garibaldi in Sicily and Naples—the defeat of General Lamoriciere and the papal army at Castelfidardo—the capture of Ancona and Gaeta—and the final annexation of the whole peninsula, excepting Rome and Venice, to the new kingdom of Italy—are events of yesterday, and fresh in the memory of every one. There is, however, one episode connected with the war of Italian independence which we would willingly forget, and that is the cession of Savoy and Nice to France. Both the fact of the cession and the way in which it was

brought about were alike discreditable to Sardinia. The cradle of the House of Savoy, the nursery of her choicest soldiers, and the town which had repeatedly made a glorious stand for the honor and existence of that House when every other stronghold had yielded to the foe, should not have been lightly parted with. It may be that the sacrifice was rendered imperative by the irresistible pressure of political circumstances, and that the fair kingdom of Italy was cheaply purchased at the price of a few sterile Alpine valleys. Yet we can not help sympathizing in the vehemence with which, on the opening of the first Italian parliament, Garibaldi—the greatest man to whom Nice has given birth—denounced the cession to France of an integral part of the ancient dominions of the House of Savoy.

Victor Emmanuel, the most fortunate and powerful of the kings of the House of Savoy, has been aptly termed the Henry IV. of Italy. He has all the gallantry and warlike ardor that distinguished the great French monarch, the same frankness and loyalty of character, the same good-nature and affability, and the same gift of personal fascination. By his Piedmontese subjects, and especially by the Piedmontese army, he is adored; and his recent progresses through his newly-acquired Italian dominions have excited a popular fervor and enthusiasm, rarely displayed, in these days, toward a crowned head. His broad chest and shoulders, his complexion embrowned by the suns of Palestro and San-Martino, his firm and easy seat on horseback, his frank and good-natured smile, were all calculated to please the multitude, and win the suffrages of the crowd; who hailed him, not with the official cry of "Long live the King!" but with shouts of "Long live Victor Emmanuel!" "Long live the King of Italy!" "Long live the Corporal of Zouaves!" "Long live the soldier of independence!" The following characteristic anecdote of this gallant monarch must close our sketch of the history of the House of Savoy: Among the Piedmontese soldiers who particularly distinguished themselves in the Italian campaign of 1859, was a sergeant of artillery, named Vigna, whose left arm was shattered by a bullet at the battle of San-Martino. The day after the engagement, Victor Emmanuel, while

visiting the wounded, remarked the interesting countenance of this young man, and his air of cheerfulness, and asked him whether he had been only slightly wounded. "Not very badly, sire," replied Vigna, raising the bed-clothes and showing the stump of his arm enveloped in bloody bandages. The King then left the place; and after making the necessary inquiries, gave orders that the brave sergeant of artillery should receive an officer's commission. Soon afterward, the wounded man was sent to Brescia; and, some weeks later, the King, during an inspection of the hospitals, recognized him, and inquired whether he had received his promotion and was satisfied with it? Vigna had received nothing. The King then issued fresh orders on the spot regarding his promotion, and went away, believing that they would be immediately executed. Some months afterward, however, during a review at Turin, he observed a non-commissioned officer approach him, and extend the empty sleeve of his left arm, on which still appeared a sergeant's badge. Victor Emmanuel has a quick eye and a tenacious memory, and he was not long of recalling to mind the artillery sergeant of San-Martino and Brescia; and, replying to the reproachful gesture by a simple inclination of the head, he returned to the palace, and immediately sent for the Minister at War. M. de la Marmora perfectly remembered the circumstance about which the King inquired; but the nomination of the sergeant had been shelved by the bureaux under the pretext of economy. The formal and absolute order of the King now, however, required obedience; and, a week later, a royal aid-de-camp brought to Vigna his commission as sub-lieutenant, and informed him at the same time that his majesty desired to see him as soon as he had got his new uniform. The young lieutenant, full of joy and gratitude, lost no time in equipping himself and repairing to the royal presence. The King, after complimenting him on his appearance, inquired if he had a horse? "Not yet, sire." "Go down to my stables then, choose one, and try it under my window." Vigna believed himself in a dream; but forthwith hastened to the

royal stables, where he selected and mounted a superb thorough-bred, which he put through its paces in front of the open windows of the palace, from which the King was watching him. "Well," at length inquired the King, "what think you of the horse?" "Ah! sire! what a pity that so handsome an animal should be skittish! It is very embarrassing for the squadron." "Go back, then and try another." This time Vigna returned mounted on a splendid chestnut, full of fire and strength, but perfectly obedient to the hand, and passing all obstacles without being scared by them. "Sire," he said, "here is a capital charger!" "I well believe it," answered Victor Emmanuel, smiling; "I rode him for twelve hours at Palestro, and he never stumbled. You have made a fortunate choice; keep him, and adieu till we meet again."

We have now followed the House of Savoy through the eight centuries of its historical existence. Perhaps the most wonderful feature of its history is, that after so very lengthened a past, it should now seem in the very flower and vigor of youth, at the threshold of a new career, full of labor and full of promise, and bidding fair in its new position, to earn a distinction that shall throw all its past glories into the shade. Unlike the Bourbons, the Stuarts, and the Hapsburgs, the princes of this house have ever been friends to the moral and material interests of their race. Victor Emmanuel has already identified his name with those principles of civil liberty and religious toleration which are the true foundation of national greatness and prosperity. The political and religious emancipation of the Waldensian Church in Italy, is a good omen for religious liberty; while the freedom of debate in the Italian parliament, and the liberty enjoyed by the press, afford guarantees for the preservation of political freedom. All eyes are fixed with intense interest on the new kingdom of Italy, and many are the prayers that its gallant King may yet surmount all the difficulties that surround him, and inaugurate, in the best sense, Italy's golden age.

From the British Quarterly.

MEMOIRS OF DE TOCQUEVILLE.*

ALEXIS CHARLES HENRI CLEREL DE TOCQUEVILLE was born in Paris on July 29th, 1805. His father was of an ancient and noble family, deriving its name from hereditary estates near Cherbourg. His mother was a granddaughter of the illustrious Malesherbes. Alexis was the youngest of their three sons, and his early education—all, at least, which usually passes for such—was a good deal neglected. He was never thoroughly grounded in the classics, and, till his fifteenth or sixteenth year, seems to have remained in ignorance of even their rudiments. At that time his father became prefect of Metz, and Alexis entered the Imperial Academy there. His deficiencies in other respects were partially compensated by the excellence of his French, and, in 1822, the termination of his academical studies was signalized by his carrying off the first rhetoric prize. After a blank of about four years, we find him traveling in Italy and Sicily with his elder brother, now Viscount de Tocqueville, and he returns to France in the spring of 1827, on occasion of being appointed one of the *Juges Auditeurs* of the tribunal of Versailles. "Had he been an ordinary man," says M. de Beaumont, "his destiny would have been ready traced" by this appointment as a junior magistrate.

"His name, his family, his social position, his profession pointed out his path. Grandson of Malesherbes,† he would have been sure of attaining the highest places in the *magistrature*, even without an effort, merely trusting to the lapse of time. Young, agreeable, connected with all the great families, fitted to aspire to the most brilliant alliances, of which many had

already been proposed to him, he would have married some rich heiress. His life, confined by narrow prescribed limits, would have glided by, at any rate, calmly and honorably, in the regular discharge of the duties of his office, in the comfortable enjoyment of a large salary, amidst the narrow but never failing interests of the judicial bench, and in the sober, peaceful happiness of private life."

Such was one of the paths open to De Tocqueville; and though it seemed for a while that he had definitively adopted it, there was gradually opening to him another, a far more difficult and laborious path, yet which seemed to him on every account preferable. The circumstances under which he came finally to choose it; the bearings of that choice upon his own life and character, and his birth thereby to a higher and nobler form of manhood; are all most necessary to be understood, and we shall endeavor to unfold them accordingly. In order to this, it is indispensable to get some comprehension of the times which had recently passed over France, and which were still passing over it.

During the whole interval between the overthrow of the empire in 1815, and the death of Louis XVIII., in 1824, the movement in French politics had been retrogressive. A selfish, ignorant, but respectable king, who had been raised to the throne on the explicit pledge of governing constitutionally, had been growing every year stronger, alike by infatuation and by the mere lapse of time, to govern unconstitutionally. The interests of the crown and of the beneficed clergy were strengthened and extended, till they threatened to absorb or to destroy all other interests.

When Charles X. came to the throne, he persisted in the course which had been already marked out for him by the policy of his brother, but with accelerated speed, and a more resolute selfishness. Emboldened by the impunity of the last few years, and by the encouragement of the new King, the Jesuits poured back into the

* *Œuvres et Correspondance Inédites d'Alexis de Tocqueville. Publiées et précédées d'une Notice. Par GUSTAVE DE BEAUMONT. Membre de l'Institut. Deux tomes. Paris: Lévy Frères. 1861.*

Memoirs, Letters, and Remains of Alexis de Tocqueville. Translated from the French. With large additions. Two volumes. London and Cambridge: Macmillan & Co.

† A mistake, which the translator has reproduced. It should be great-grandson.

cities and thrust themselves into the numerous posts of authority from which the revolution had expelled them, and the empire had effectually forbidden them. They swarmed in Paris, pestered the Parliament, were the most assiduous of courtiers, and were supreme in the closet of Charles. They procured the creation of twenty-one new bishops, and moved for the restoration of the revenues which had been confiscated in 1789, and which it is certain could not have been diverted back to their ancient channels without endangering both the Church and the State. The creation of the twenty-one spiritual peers was followed by the creation of seventy-six temporal peers, in order to the more complete securing of court supremacy in the Upper House. Priestcraft and kingcraft were to be the two elements of the new reign. Charles really believed himself a skillful politician, and desired to be absolute. He was equally unfortunate in exaggerating his own abilities, and in depreciating the worth and the might of the nation he ruled. He was no less a stranger to wisdom in his projects, than to common prudence in the selection of means. He was perpetually repeating to himself and to others, "*On ne réussit que par la vigueur !*" (no success without energy;) and if he had lived till now, he would have been repeating it still, only lamenting that he had not been energetic enough.

"The party of the Congregation," as the leaders and tools of the Jesuits were called, obliged the government to bring forward a bill making sacrilege a capital crime—the theft of a ragged surplice from a church-vestry punishable with death and mutilation, *mort avec le poing coupé !* Mortified by the defeat which this impious rashness procured, "*le parti-prêtre*" proceeded for a time more cautiously, and then, with the willing assistance of the King, constrained the ministry to introduce a measure for the effectual, and even ignominious destruction of the liberty of the press. The designs of the reactionists had now become transparent, and Paris was in all but open uproar. The common sentiment of common danger united all classes in opposition to the measure, and produced a unanimity of indignation and of action that might have led one to fancy, says M. Lacretelle, "that all France lived by the press." The French Academy—surely one of the proper and most responsible

guardians of the freedom now attacked—proposed to remonstrate against the measure, and was threatened with dissolution by royal edict if it should. Two of the three members who were appointed to draw up its protest, MM. Villemain and Lacretelle, were dismissed from their posts as Masters of Requests, and the third, none other than Chateaubriand, would have had to share their "disgrace," only that he had been "disgraced" already. With the Chamber of Peers the bill would have occasioned no difficulty; in the Chamber of Deputies it was treated exactly as it deserved. A sufficiently full account of the discussion it provoked there may be found in Lacretelle.* Keen, fierce, and brilliant as was the whole debate, it may be doubted whether it contained any thing better than the speech of the venerable and eloquent Royer-Collard—a man whom one always feels safe to love. In his exordium there was an exquisite mixture of gravity and ridicule, which we find extremely refreshing: "According to the real sentiments of this bill," said he, "there was on the great day of the creation a want of foresight in letting man escape into the midst of this universe in possession of freedom, and endowed with intelligence. Evil and error have been the consequences. But a higher wisdom proposes to repair this fault of Providence—to curtail its imprudent liberality—and, by wisely maiming our humanity, to do it the kindness of raising it, at length, to the happy innocence—of brutes!" It scarcely need be added that this "law of justice and mercy," as the government had called it in the *Moniteur*, perished utterly. What is more to the purpose, it had discovered the designs of the party in power. It was impossible after this, to lull the nation into that slumber of security which had been so rudely disturbed, and which was indispensable to its being robbed and insulted with impunity. It did not take much rubbing of the eyes to make men see clearly enough now why Beranger's ballads had been suppressed; why it was proposed to readjust and amend the established order of trial by jury; why the bench of bishops was being recruited with additions every year; why four of those prelates had been elevated in a batch to the rank of ministers of state; why it was de-

* *Histoire de France depuis la Restauration*, Tome iv. ch. xxxiv. Paris, 1835.

sired to reëstablish the law of primogeniture; why it was proposed to make the duration of Parliament septennial, on the express condition that the very Parliament which was to pass this law, should itself break all law by acting on it without first resigning its trust into the hands of its constituents; why Manuel, one of the most eloquent and distinguished members of the Constitutional Opposition, had been dragged from the Chamber by physical force for making a speech which could not otherwise be answered; and why a hundred other things had been done which were thought, at the time, to be only freaks of power or errors of judgment, but not of intention. The National Guard was haughtily and summarily dismissed; the Villèle ministry fell, and was quickly followed by that of Martignac; and while men were wondering what was to be next, Prince Polignac, the man after Charles's own heart, was smuggled into the palace like a bale of stolen goods, and was then made Premier of France.

As this period was, in fact, the very *making* of De Tocqueville, it needs no excuse that we wish it to be strongly placed before the reader's mind. So far as we know, it has not yet been sufficiently considered in this respect. M. de Beaumont, however, has not failed to observe it in some part, and if his brief but glowing description excludes all reference to particulars, it may well be because such information was less necessary in France, than must unavoidably be the case with a nation that was, at that time, only too fully occupied with its own affairs.

"Those who did not witness that period," he writes, "(from 1827 to 1828,) and who are acquainted only with the languor and the indifference of our own, will hardly comprehend its excitement. Twelve years had elapsed since the fall of the empire. For the first time France had known liberty, and had loved her. This liberty, a comfort to some, the greatest of blessings to others, had created for all a new country. Institutions were substituted for the will of one man; new habits arose amidst profound peace. The development of instincts, feelings, and wants, till then unnoticed, had contributed to awaken a new life in a regenerate nation. Yes, it must be acknowledged that, setting aside the old revolutionary and imperial parties, whose liberalism was a lie, and in spite of the disagreements inseparable from freedom, France was at that time sincerely liberal, passionately attached to her new institutions, jealous in maintaining them, quickly alarmed by the dangers which threatened them, and ready to see

in their destruction or preservation her own degradation or grandeur. Now, for the first time, the great problem of constitutional liberty was seriously stated in France. The country seemed to feel the peril of the experiment. With what anxiety she watched its progress! with what emotion she looked for the slightest symptoms of a storm, whether coming from the people or the sovereign! What interest was then taken in the smallest incidents of public life—the arbitrary act of an official, a prosecution for libel, the verdict of a jury, a new book, a word let fall in one of the Chambers, sometimes a newspaper article!"

The whole period, indeed, but especially from 1827 to 1830, marks one of the greatest and most striking progresses in French intellect. Men awoke to a life to which they had hitherto been strangers. De Tocqueville was of their number. The irresistible forces which then swayed France, reached not only to the seats of justice—usually inaccessible—but to all other seats; and dead things were quickened into life, and old things either passed away, or endured an ordeal which pronounced them fit to live.

Then came the Three Days of July, 1830, and the flight of the unhappy King—another minor revolution in the grand revolution not yet finished. De Tocqueville was only in his twenty-sixth year, but showed that he had already been a careful student of his age. A new phase of existence opened to him; yet he proved that he had not in the desirable lost sight of the possible or the probable. His views were practical and those of common-sense. He had examined most profoundly into the character of his countrymen, and, having attained to a wide and comprehensive knowledge both of history and of mankind, he could not but watch the advent and the action of the new revolution with anxiety and fear. When it came, he deliberately, but without enthusiasm, joined the ranks of the government, and when Louis Philippe had become the successor of Charles, he gave a free but sorrowful adhesion to the new King, hoping against hope for the best, and feeling how dangerous to constitutional liberty—or, in other words, to the moral and intellectual salvation of his country—might easily be a system directly inaugurated by popular power, and which promised to become neither stronger nor better than that which had produced it.

Six months later, De Tocqueville was on his way to America. He had an irre-

sistible desire to study the nature and character of democratic institutions, in the only country in which they might be seen untrammelled and entire. He proposed his plan to his friend and colleague, M. de Beaumont, who eagerly approved it; and having procured an official mission to study on the spot the United States Penitentiary System, the two young magistrates obtained the necessary leave of absence, and in May, 1831, found themselves in New-York.

It is not needful to dwell in detail on what De Tocqueville saw and did in America. It may suffice to note that the twelve months to which his visit extended, were passed in incessant activity, travel, inquiry, observation. The official mission of the two friends was fully accomplished, and, on their return, they published an elaborate Report on it, under the title of *The Penitentiary System of the United States, and of its Application in France*. It was speedily translated into German and English, and occupies a high place among the works of its class.

During the whole time of his travels in America, materials had been accumulating in the mind of De Tocqueville for another work of a totally different, and of a much more important and difficult character. He was resolved to write a book on democracy. He felt that, whether for good or harm, for blessing or curse, democracy was the one grand and central fact of modern state-life and politics. He saw that there was in it much which had never been investigated, and never understood. He found that, no more in our language than his own, no more in America than in Europe, was there a complete and philosophical explication of it as a fact—an unfolding of it from its principles—a display of its essential tendencies, of its real nature and character. Such fact he had set himself to study, and such a book he would endeavor to write. Happily for us, his official duties at Versailles were interrupted, and he thus obtained the leisure necessary to his task. It would be an erroneous omission not to describe the manner in which this interruption occurred. M. de Beaumont's narrative of it suggests more than the manliness and courage of those immediately concerned. He writes:

"The resumption of his magisterial duties at Versailles might have proved an obstacle, or at

least a rival, to the progress of the work. An accident removed it. His friend, M. de Beaumont, who had returned to his official post, refused to speak on an occasion when the part which the *ministère public* had to play appeared to him discreditable, and had, for this reason, been dismissed. Tocqueville, considering himself affected by the blow which struck his friend, immediately sent in his resignation, in these terms:

"TOULON, May 21st, 1832.

"MONSIEUR LE PROCUREUR GENERAL: Being now at Toulon, engaged in inspecting the Bagnio and other prisons of the town, it was only to-day that I learnt, from the *Moniteur* of the 16th of May, the severe, and, I venture to say, unjust sentence pronounced by *M. le Garde des Sceaux* on M. G. de Beaumont.

"Long united in intimate friendship with the person who has just been dismissed from his functions, whose opinions I hold, and whose conduct I approve, I think myself bound voluntarily to share his lot, and to abandon with him a career in which neither active service nor upright conduct is a security against unmerited disgrace.

"I have the honor, therefore, to request you, *M. le Procureur Général*, to have the goodness to lay before *M. le Garde des Sceaux* my resignation of the office of *juge suppléant* at the tribunal of Versailles.

"I have the honor to be, etc."

Here, with an emphasis, were fruits of the change through which De Tocqueville had passed during the ripening of the revolution of July, 1830, and which had only been confirmed and completed by what he had seen and experienced abroad. Thus was the first path abandoned, and the second one openly and forever preferred.

And now came to De Tocqueville two or three years of the greatest happiness which life could afford. Emancipated from the doubts which had formerly oppressed him, with health of body and a fully occupied and powerful mind, with a definite subject and a reasonable abundance of appliances for its study, De Tocqueville energized freely and with pleasure,* laboring hard, but with the elastic and cheerful vigor of a man conscious of strength, and assured of reward. The result was the first two volumes of his *Democracy in America*. They were published in January, 1835, and achieved an immediate and unparalleled success. "Since Montesquieu there has been nothing like it," said Royer-Collard; and if

* "Pleasure," says W. Hamilton, "is the reflex of unforced and unimpeded energy."

in any thing Europe and America have failed exactly to indorse this dictum, it has been because they have felt that, as a whole, not even Montesquieu may advantageously compare with De Tocqueville.

Profoundly gratified by a success which silenced every misgiving as to his own powers, and which had made him illustrious, De Tocqueville rested, visited England, (whither his fame had preceded him,) married, traveled, and, in due time, settled himself anew to the studies which were requisite to the completion of his task. He felt that it would not do merely to equal what he had already done. He knew, moreover, that success sometimes leads to undue confidence; and placing clearly before himself the object he designed to accomplish, and the dangers and temptations which might stand in the way of it, he girded himself for long and patient labor, resolved that neither indolence, nor confidence, nor haste, should defraud him of his aim. Five whole years did he devote to the preparation of the last two volumes. They contain not a sentence which was not profoundly pondered as to its matter, and most carefully elaborated to chasteness and perfection of style. The multitude of books he read at this time is said to have been something prodigious. Avoiding such as bore directly on his subject, he seized on every thing else with eagerness and delight. The great writers of the seventeenth century were never out of his hands. Bourdaloue, in particular, he seems to have studied much as Horace bids one study the models of Greece—not so much for opinions as for a mastery in art and style which appeared the nearest approach to perfection. "Plato, Plutarch, Machiavel, Montaigne, Rousseau, and their fellows," says his biographer, "he may be said to have devoured." In a letter to his friend De Kergorlay, he says himself: "I pass a short portion of every day with three men—Pascal, Montesquieu, and Rousseau." His labor was incessant, protracted, intense, and was directed to its proper end with the precision and insight peculiar to genius. In the case of some men, the outcome of it all would have been a pile of *tomes* that it would be almost as fatiguing to read as to write. With De Tocqueville, it was two small volumes, from which not a word could

be omitted without loss, or transposed without detriment; in which thought succeeds thought in perfect and rigorous sequence; and which form a whole of proportioned symmetry and strength such as it is scarcely possible should be surpassed.

When he published the second part of his *Democracy in America*, De Tocqueville had been for several years resident in the country, though spending his winters in Paris. Family arrangements made after the death of his mother in 1836, left him possessor of the old family-seat, the "Château de Tocqueville," situate on the peninsula of which Cherbourg is the extremity. His house and grounds commanded the finest views of both land and sea. He found it by no means a hindrance to his studies that he had to devote some portion of every day to the care of his estate and to the repair of the old château. Another thing which added to his contentment in the country was, that political life was strongly attracting him, and that residence on his own property has always been one of the best means by which a good landlord may enter it.

" 'It is certain,' writes M. Beaumont, 'that if he had not sought political life, it would have sought him; for in a free country, any thing that raises a man above the crowd, draws to him public attention, and Tocqueville was already illustrious. But, in fact, he desired it. Tocqueville had much ambition—not the vulgar ambition which feeds on money or on place, or is satisfied by empty honors—such ambition he knew only to despise it.' "

In March, 1839, accordingly, he was sincerely gratified by his election to the Chamber of Deputies for the *arrondissement* of Valognes, and he continued to represent the same constituency till 1848, regularly voting with the constitutional opposition.

It will do any thing but surprise our readers to learn that, as a speaker in Parliament, De Tocqueville had no success. The functions of writer and orator have certainly much in common, but they have almost as much in difference. It is not necessary to discuss and discriminate here, though M. de Beaumont has done so in his memoir. His affectionate and jealous solicitude to do justice to the memory of his friend, has led to an agreeable digression, describing exactly how it was that De Tocqueville was not an orator, and gently urging an acknowledgment

we have no unwillingness to make, that a great book demands for its production higher and finer qualities than a powerful speech.

At the end of De Tocqueville's nine years' representation of Valognes, came the Revolution of 1848. It filled him with indescribable pain, though it failed to take him by surprise. Indeed, he had already, and in the most explicit terms, warned the Chamber of its near approach some four weeks prior to its outbreak. He foretold the truth, though, like sundry other prophets, he was not believed. No one can suppose that by such a man as De Tocqueville, such a prediction would be rashly and wickedly hazarded. To him there was no hazard in the question. He did not guess, or augur, or conjecture, or merely expect, a revolution; he perceived it. It was as if he had marked the birth of a cyclone, and, by the infallible laws of storms, had announced the place over which it would burst. The gift was in seeing the birth, not in foretelling the crash. How truly De Tocqueville saw it may be gathered from the following extract from a speech he delivered in the Chamber on January twenty-seventh. The commencement of the Revolution was February twenty-fourth.

"'. . . It is supposed,' said he, 'that there is no danger because there is no collision. It is said that as there is no actual disturbance of the surface of society, revolution is far off.

"Gentlemen, allow me to tell you that I believe you deceive yourselves. Without doubt the disorder does not break out in overt acts, but it has sunk deeply into the minds of the people. Look at what is passing in the breasts of the working classes—as yet, I own, tranquil. It is true they are not now inflamed by purely political passions in the same degree as formerly, but do you not observe that their passions from political have become social? Do you not see gradually pervading them opinions and ideas, whose object is not merely to overthrow a law, a ministry, or even a dynasty, but society itself? to shake the very foundations on which it now rests? Do you not listen to their perpetual cry? Do you not hear incessantly repeated that all those above them are incapable and unworthy of governing them? that the present distribution of wealth in the world is unjust, that property rests upon no equitable basis? And do you not believe that when such opinions take root, when they spread till they have almost become general, when they penetrate deeply into the masses—that they must lead sooner or later—I know not when, I know not how, but that sooner or later they must lead—to the most formidable revolutions?

"Such, gentlemen, is my deep conviction; I believe that at the present moment we are slumbering on a volcano, (murmurs;) of this I am thoroughly convinced, (excitement.)"

De Tocqueville's conduct under the new and trying circumstances which attended the expulsion of the Bourbons, so truly illustrates the whole character alike of his intelligence and his heart, and has been so ably summed up by his biographer, that we gladly present the account of it.

"De Tocqueville had not been bound by any close or peculiar tie to the fallen dynasty; he was attached to it in a merely constitutional point of view; but his great intelligence had, from the first, appreciated the danger to liberty caused by the revolution.

"The danger he considered immeasurable, and the consequent mischief the greatest possible. To avert, in the midst of so much irremediable misery and ruin, this last and greatest danger, seemed to be all that remained for him to attempt. Therefore, after an attentive study of the events passing before him, after considering the raging passions, the divisions of party in the country, divisions which were faithfully represented in the Assembly, he became, whether rightly or wrongly, convinced of two things—first, that the only and, perhaps, the last chance of liberty for France lay in the establishment of a republic; second, that every attempt to prevent its success would end in the ruin of the republic in favor of the power of a single person. In so judging, he was assuredly not carried away by enthusiasm. His instinct and his reason were equally offended by the republic of 1848; the violent and surreptitious origin of the revolution—its authors—the licentious theories and even the absurd phraseology that it had brought forth—were thoroughly repugnant to his nature, and would have held him aloof from the republic, had it not been for the extent of the evil from which he thought that the establishment of the republic alone could save France. Tocqueville would have done any thing to obviate it, because he felt that its natural consequence would be to drive France into an abyss of misery; but now that the republic was established, he saw safety in its maintenance. Was he wrong? Was the permanence of the republic a chimera? One must beware of judging every thing by the result. Many declared the republic to be impossible, who proclaimed still more impossible the permanence of absolute power. However that may be, it is essential to make known the convictions of Tocqueville, as they only can furnish the key to his conduct at this important epoch of recent history. These convictions regulated all his acts; and it is remarkable that, in the midst of the most perplexing circumstances, Tocqueville had not one instant of hesitation or weakness, but appeared invariably more energetic and more resolute than ever."

Thus making the best of what he would fain have had otherwise and better, De Tocqueville will need no vindication for having supported, to the extent of his ability, the only government which then seemed possible. After his return to the Constituent Assembly as representative of the department of La Manche, and when it had become necessary to elect a President, De Tocqueville appears to have considered that General Cavaignac was the man best fitted to be the chief of the infant republic. In so thinking, he was only of the same mind with the best informed and ablest politicians on both sides the channel. This, however, did not hinder him from supporting the government of Odillon Barrot, nor from obeying the summons which he received while traveling on the Rhine with his wife, and which required his return to Paris as Minister for Foreign Affairs. He dealt with the questions which came before him in this new capacity with rare ability and success, but at the end of only five months, we believe, circumstances obliged him to give up his portfolio. He continued to sit in the Assembly till it had dragged its miserable existence almost out, and then, with worn-down health and an utterly jaded mind, he hastened to Sorrento to recruit both. But not even Sorrento—which wife, friends, books, society, climate, scenery, all combined to make the most charming retreat in the world—could do more than partially, and for a while, blunt the anguish with which he watched Paris and France, and the man who was destined to be master of both. He saw the gathering of the storm, appreciated the danger which would attend its outburst, and could no longer rest in the security of his Italian retreat. He felt it would be almost like stealing away from a duty to remain there; and, taking a hasty leave, he arrived in Paris in time to be in his place on the second of December, 1851. What took place on that darkest of days is needless to recapitulate. De Tocqueville shared the lot of his colleagues, being one of the Two Hundred who were marched as prisoners to the barracks on the Quai d'Orsay, whence they were at night removed to Vincennes.

Immediately on regaining his personal liberty, De Tocqueville withdrew to his estate in Normandy. The silence and quiet of uninterrupted communion with

Nature were what he deeply needed, though at first he was unable to enjoy them. There was too fierce a fever within to admit of more than a toleration of the profound tranquillity without.* It was only by degrees that the gentler influences began to prevail, and, even then, but partially. It is certain that though he so much strove to repress them, De Tocqueville was never able completely to subdue the repugnance and impatience with which, on this occasion, he yielded to what he was unable to prevent. Combining with his sense of powerlessness, these feelings often amounted to absolute torture; and we doubt whether, at the best, he ever attained to more than a dubious and paradoxical sort of resignation which, though refusing to be openly swayed by passion, was withal consistent with an ever-present consciousness of utter injustice, of being one, and only one, of the victims of the most gigantic and successful outrage of modern times. Some of the letters written about this time evince only too plainly the keenness and depth of the anguish he endured. We can find space for only a portion of one of them; it dates five months later than the *Coup d'Etat*, and from Paris. De Tocqueville had returned thither from the country to gather materials for the new book he was meditating. He wrote no phrased sentiment, but only what, under such circumstances, a great-souled and profoundly sensitive and noble man could do no other than feel:

" . . . All work is for the present impossible. Being in Paris, I attribute my incapacity

* "Go out," says one who was richly competent to write of this point, "go out into the woods and valleys when your heart is rather harassed than bruised, and when you suffer from vexation more than grief. Then the trees all hold out their arms to relieve you of the burden of your heavy thoughts; and the streams under the trees glance at you as they run by, and will carry away your trouble with the fallen leaves; and the sweet-breathing air will draw it off together with the silver multitudes of the dew. But let it be with anguish or remorse in your heart that you go forth into Nature, and instead of your speaking her language, you make her speak yours. Your distress is then infused through all things, and Nature only echoes, and seems to authenticate, your self-loathing or your hopelessness. Then you find the device of your sorrow on the argent shield of the moon, and see all the trees of the field weeping and wringing their hands with you, while the hills, seated at your side in sackcloth, look down upon you prostrate, and reprove you like the comforters of Job."—*Hours with the Mystics*. 1st ed. vol. i. pp. 33, 34.

to the events that I see, and to the exciting conversations of every day. If I were in the country, I should attribute it to solitude. The truth is, that it arises from a sickness at heart, and will not cease till this is cured, which can be the work only of time, the great healer of grief, as every one knows. I must try to wait patiently for the cure. And yet I cherish this grief as one does every real sorrow to which one has a right, bitter though it be. The sight of all that is going on, and especially of the way in which it is regarded, hurts every feeling of pride, honor, and delicacy. I should be sorry to be less sad. In this respect, I ought to be thoroughly satisfied, for, indeed, I am sad unto death. I have reached my present age, and passed through all sorts of circumstances, advocating always the same cause—regulated liberty.

Can this cause be lost forever? I began to fear it in 1848, I fear it now still more; not that I am convinced that this country will never again possess constitutional institutions, but will they last, or will any others? It is a moving sand. The question is, not whether it can be fixed, but what will be the winds that will toss it about?

"Still I try to work. Every day I spend two or three hours in the library of the Rue de Richelieu. In spite of my endeavors to turn my thoughts in another direction, a profound sadness sometimes steals over me; and if I allow it to seize upon me unawares, I am lost for the rest of the day. My life might be pleasant, but if I look aside from my book, I am cut to the heart."

[TO BE CONCLUDED.]

From Titan.

A THOUSAND YEARS AGO; OR, ALFRED THE GREAT.

ABOUT the year 855, an Anglo-Saxon king is in Rome, visiting the churches and laying costly offerings upon their altars. He is a man of a sorrowful countenance: he looks as though he had run away from trouble, and as if he were trying to hide his bewildered head beneath the shadow of him who sits as Bishop upon the seven hills of old Rome. The clamor of those fearful northmen "whose cry is in their ships," is still ringing in his ears; and he even now has the scared look of one who listens to a distant echo. The marauding Danes had harried the lands of this poor West-Saxon king, until, remembering the vows which in his early youth he had taken upon him, and sighing for the cowl which he had put on in love, and been forced to throw off in haste under pressure of state necessity, the royal devotee has made a pilgrimage to Rome in order to tell his beads in peace. Wherever he goes, from shrine to shrine, he leads by the hand a fair boy of six years, his fifth, but favorite son.

Is there any thing in that young child's face which hints at future greatness? Doubtless there is an inscription written

there which, like the invisible ink sometimes employed in secret correspondence, will start out into meaning as soon as it be subjected to the strong light of the full day, or to the fiery heat of maturing circumstances. That fair-haired child, born in the year of grace 849, at a place called Wantage, in that part of the West-Saxon kingdom now known as Berkshire, is one of that small brotherhood who are known to all posterity by the title of "Great." No doubt that title might be read even now, either in the molding of the brow, in the clear light of the eye, or in the firm chiseling of the little mouth. Perhaps even the childish step has the expression of greater decision than has the wavering, inconsequent gait of that care-worn Saxon father, as the two strangers pace the round pavement of the Appian Way, or climb the broad stair which leads up to the Capitol. Young Ælfred is the future founder of a long-lived kingdom, the skillful architect of a noble constitution, the brave deliverer of an oppressed people, the calm sage who weds liberty to security, the enlightened foster-father of learning—himself scholar, poet, and minstrel.

But the credentials which that child has to show are as yet a sealed packet; and as to future kingship, there are turbulent brothers betwixt Alfred and the throne of Wessex; there were four elder brethren once—one is now dead; but the remaining brethren must each have his turn upon that unstable seat—and young Alfred will resolutely serve them all, with strict loyalty, until God call him to the foremost place.

The father and son spend a whole year in Rome, though England is miserably devoured by the Danish Raven during the weak king's absence. The banner of these terrible Northmen was a Raven, enwrought by the hands of the three fell sisters of Inguar, Hubba, and Halfdene, children of the famous Regnar Lodbrog, the most formidable of all sea-kings. It was a labor of revenge, finished in one noontide; and they said that the mystic Raven would always clap his black wings when he scented victory on the breeze, and always drooped his head when disaster was at hand. The Raven is in full feather now, while the recreant Ethelwolf is rebuilding the school of "Thomas the Holy" at Rome, sealing the grant of "Peter-Pence," and promising to pay yearly a subsidy of three hundred marks to the rising Bishop of Rome—one hundred of these to glide into his privy-purse, one hundred to feed the lamps of St. Peter's on Easter eve, and the last hundred to light the lamps of "St. Paul without the Walls." "This is the Bride," as said old John Speed, in speaking of the Romish Church, "the Bride that evermore must be kissed and dowered."

Alfred, young as he is, is quite at home in the city of the Cæsars. His father had once before sent the child of his hopes thither on pilgrimage, when he was but four years old. The little Anglo-Saxon had traveled down through France, and over the snowy mountains, into the beautiful land of the south, attended by a stately retinue. The Pope of the day is not likely to have had a prophetic view of the child's coming greatness: but it is probable that a secret message from so faithful a son of the Church as Ethelwolf, had induced him to anoint, as future monarch of England, the favorite child of the West-Saxon king. However this might be, it was the policy of a growing hierarchy to occupy every foot

of vantage-ground, and to claim every imaginable power over kings and peoples. The chrism which has anointed that child's head in the Church of "St. John Lateran," the mother church of Rome, may perhaps stand him in good stead some day, when rights are weighed in the uncertain balances of opinion.

But to return to the royal father and his favorite son. Rome is at last left, and the homeward journey is made through France. A new fascination awaits the widowed king as he pauses to rest at the Court of Charles the Bald. Here there is a beautiful maiden, the daughter of Charles, the near descendant of Charlemagne; and the old king is in desperate love. It takes some time to persuade the royal beauty to become the wife of an elderly monarch who has grown-up sons at home, the eldest of whom is rebellious, ambitious, and already plotting to seize the throne of his loitering father—that throne, too, tottering from external assaults, as well as heaving from internal commotion. The fair Judith allows herself to be wooed from July to October of the year 856, and then she accompanies her husband and little step-son to England. So charmed is the monarch with his young Frankish bride, that he insists on sharing with her his royal dignity; and a ceremonious coronation of the queen-consort takes place, though for some time past the Anglo-Saxon queens had been reduced to a very subordinate position. But the sight of a crown on the head of his youthful step-mother, and the knowledge that the anointing oil had been poured on the head of his youngest brother, only further irritate the turbulent Ethelbald: and so strong grows the rebellion, that the weak monarch is fain to give over the half of his kingdom to his wayward son, for the dear love of peace. That wretched compromise will not wear well. The old king dies in two years' space, leaving a divided house and a vexed kingdom. Strange things and unlawful follow; for Ethelbald outrages law, custom, and religious institutions, by taking to wife this very lady, whose coming and whose crown had so deeply moved his jealous nature. They say that Swithin, Prior of Winchester, the tearful saint, so wrought upon the mind of the reprobate, that he consented to put away his wife, and otherwise to mend

his ways. But he only survived his father about three years; and his brothers, Ethelbert and Ethelred, successively reigned in his stead.

All this while young Alfred's mind is molding under the hard hand of adversity, while it receives a finer finish from the lighter touch of woman's influence. The Lady Osburga, his own mother, a woman of excellent gifts, had died when he was yet in early childhood; but the influence and the example of the accomplished step-mother are highly stimulating to his young intellect. The "intellectual Paladins" of the court of Charlemagne had left behind them a standard of education far higher than that which obtained in England; and when Alfred was lingering with his father the while he paid court to the Princess Judith of France, he probably caught something of the tone of mind which prevailed around him. Certain it is, however, that not even a monkish tutor had been found to teach the boy to read up to his twelfth year; and but for the incident which follows, well known, truly, but one which will bear repeating in all the school-rooms of the nineteenth century, Alfred, the scholar, the poet, and the minstrel-king, might have been left to sign his after-edicts with *tooth and nail*, like his rude "forebears," leaving the impress of a royal front tooth and a thumb-nail upon the soft wax. The other boys, his brothers, have grown up in profound ignorance of their letters, but here sits the beautiful Frankish step-mother in one of the rush-strewn halls of her rude English palace. She has just laid aside the royal standard which she has been "embroidering," whereon the White Horse of the Saxons is making ready to confront the Black Raven of Denmark. Her household is grouped around her—the ladies at their spinning-wheels, the eorls and thanes lounging in listless "idlesse." Judith draws out an illuminated manuscript of Saxon poetry, and she reads aloud. The verses have no classic elegance, but they have a stately rhythm of their own; and the thoughts, though rude, are stirring and heroic. The boy Alfred listens with an intensity shared by no other of the group. The royal lady looks around, holds out the book in her hand, and promises that he shall own the manuscript who first learns to read it. The rebel son, king as he is,

cares not to enter such lists as these, and the others hold their peace likewise. With flushed brow the boy Alfred leans forward and asks: "Wilt thou in very deed give the book to whomsoever shall first read and repeat it?" The queen confirms her promise. The Frankish Judith, like the wife of Heber the Kenite, has driven a nail into a sure place. Alfred takes the precious volume and slips away. He goes about seeking for some one to teach him to read his own mother-tongue, and it is no easy quest at an Anglo-Saxon court in that year 861. At last the young student returns, triumphantly recites the poem, and claims the reward. "The child is" indeed "father of the man," and that man will be one of the great ones of the earth. In the teaching drama of that one life, the much talked of "unities" were singularly preserved throughout; the "days," from childhood to advanced manhood, being

"Bound each to each by natural piety."

That boy will live to translate with his own hand into his vernacular tongue, a book which became his dear friend and companion. It was Boetius' *De Consolatione Philosophiæ*; and in peace or in war Boetius was carried about in his bosom; nay, he will never rest until he hath given to his country, in Saxon versions, the histories of Orosius and of Bede, the Greek fables of Æsop, and Gregory's *Pastoral*; and he will instruct and refine his ignorant people by the graceful teachings of his own muse. It is even said that he rendered into Saxon the Old and New Testaments; but it is not credible that so vast a labor could have been accomplished in the intervals of outward distraction. We honor him in that he had it in his heart to do this; and we know that when the pen and the scepter dropped together from the hand of the dying monarch in the fifty-second year of his age, he had half-completed his version of the Book of Psalms. These are brilliant results of that memorable hour in the rush-strewn hall, when the young step-mother held up her prize-book for competition amongst the unlettered youth of a kingdom! If history dealt more with such noble conquests as these, and somewhat less exclusively with the flapping of a raven's wing, the prancing of a mystic horse, the triumphant

swoop of an eagle, or the culminating of a crescent; in fine, if we had more of the moral and intellectual history of men and peoples, and rather less of the physical, we might be wiser students than we now are.

At last Alfred is called to the throne in preference to the children of an elder brother, by the sanction of his father's will, and by the call of a whole nation speaking as with the voice of one man. He is twenty-two years of age now, of a countenance open and engaging, in figure and bearing noble and dignified, in temper singularly mild, and with intellectual gifts and moral qualities such as furnish the very ideal of Christian chivalry. And truly he has fallen upon proving times! The metal he is made of will be tried by almost every conceivable test, saving that most searching one of all—a long summer day of prosperity. He began to reign *quasi invitatus*, as his trustworthy biographer, Asser, says of him, so that we may believe that the step out into greatness was unwillingly taken; and forthwith the sword must be buckled on!

For the first seven years of his reign there is no great proof of skill displayed in the handling of either scepter or sword. He is learning bitter lessons of humiliation, while he makes worthless truces with the treacherous Northmen, who are stalking over the land pillaging, burning, and killing wherever they go. Alfred's friends are even emigrating to other lands in despair, and leaving him alone to face the storm; and we catch an occasional glimpse of a fugitive who is angling in a stream for a dinner, hunting in a wood in hope of breaking a long fast, or hiding in the tangled bushes of a marsh; sometimes with a few haggard comrades, at others in lonely misery; and yet dividing his last loaf with some beggar-subject whose face is yet more sharply cut by famine than his own. Then comes the retreat to Athelingay, the "Isle of Nobles," with the one narrow pathway to his hiding-place, stealing through the alder-growth of the bogs; and then that long year's residence in this "moated grange," where he waited drearily for better days, and "yet they came not." The story of the burnt cakes is such a household word in the million homes of the Anglo-Saxon race, that it may not be rehearsed here, lest perchance some ragged school-boy might consider himself qualified to

set the sketcher right in some minor detail of the picture.

But now at last, after the seven years of apprenticeship to misfortune, come the brighter days. Hope rises amidst the mists of the isle of Nobles; a handful of followers has threaded the wet path leading to the "moated grange;" they are throwing up little earthworks, making mud entrenchments, running out unexpectedly, beating the astounded Danes, and vanishing again, nobody knows whither! This brisk exercise stretches the enfeebled limbs of depression, and gives more muscular strength to the new-born confidence of the bog-folk and their king. Then ensues the poetical little episode of the harper, who drew such melody from his strings, and sang so deliciously to their music, that he is bidden to the banquet-board of the Danish King as he carouses in his entrenched camp of Eddendune, near Westbury. Like Gideon, Alfred listens to the dreams of intoxicate security, and soon makes ready to break the sorry pitcher which hides his lamp. Whether Alfred, upon this, sent round, as signs and tokens, some of his neatherd's brown cakes, like the handing about of the "chupatties," which were the signal of Indian outbreak the other day, the Saxon chronicle hath not recorded; but, by some sign or other, the English were suddenly awakened out of the sleep of exhaustion by the word: "The King yet lives in Athelingay; the stone of Egbert is the place of meeting." The tryst is joyfully kept, and, for the two days of muster, the blowing of horns is prodigious. The down-trampled Saxons are springing up in all directions, and hurrying in arms to the rendezvous in the willow-thickets of Selwood forest. In one of Alfred's successful sallies from the fens of Athelingay, he had surprised and carried off the famous "Reafen," that enchanted Raven standard of the Danes, so that he has a pledge of future victory to display to his people when they flock to his side at the "stone of Egbert." He has also a dream to tell, which marvelously helps his cause—how that Neot, the Cornish saint, at whose shrine he had once knelt in bodily anguish, and risen up much the better for the appeal, had come in the visions of the night and had promised victory. Some say that Cuthbert, the stern Saint of Lindisfarn, had taken the trouble to come and whisper encouragement.

The two days have passed, and on the

third the Anglo-Saxons march to Eddendune. Alfred is undisputed chief of the Saxon interest in England, because all the kingdoms of the old Heptarchy have now died out, leaving him the representative man. The King says a few words of stirring appeal to his people, and then leads them against the uncounted masses of the Northmen. The Danes fight well; but they are inwardly terror-stricken; because, as "Alfred! Alfred!" is the cry, they think that the grave has opened, and sent him forth to their destruction; while he himself points, with a confident finger, at a standard-bearer who heads one division of his army, and cries: "Saint Neot has come with victory!" Each of these fancies does its work on the excited brain of Dane and of Saxon; it was as the shade of Theseus at Marathon. The Northmen are falling or flying, and before night all who are not lying on that encumbered plain are strengthening themselves in a neighboring entrenchment. Alfred, now King of all England, is beleaguering the Danes, and keeping stern watch about them for a fortnight. While they are growing hungry and heartless, making ready to sue for mercy, mayhap a detachment of Alfred's men is cutting the turf on the hillside above Westbury, and shaping out the great "white horse" on the chalk, to mark the field of Eddendune. But here comes Godrun the Dane, humbly and "delicately." It is well for him that no righteous Samuel is nigh to "hew Agag to pieces." Alfred, instead thereof, exacts oaths and hostages, and one other surrender, at whose precipitancy we certainly demur. Godrun and his Pagan chiefs must go with Alfred to the neighborhood of the Isle of Nobles, and there, clad in white garments, profess Christianity, and receive the seal of baptism. Alfred himself stands godfather to the unreclaimed-looking candidate, and then away go Godrun and his fierce fellow-converts to find spades and pickaxes wherewith to cultivate their new allotment of East-Anglia. As much to our surprise as to our pleasure, we find that the bold scheme answers. Godrun becomes a respectable colonist, a worthy agriculturist; and when a great fleet of the Northmen, under Hastings, the famous hero of Scandinavian romance, soon afterward comes sailing boldly up the Thames, thinking to be eagerly joined by their old confederates, they find the sea-king

settled down as a reputable country squire, amidst his broad acres, and his promising crops. He can not spare time to go harrying the land as of old. He has a vested interest in the prosperity of the country; goes soberly to church on Sundays, and sits in the squire's pew. No! Godrun at least *professes* to fear God and honor the King; and so the strangers spend a dull winter at Fulham, and then sail away to seek better luck in Flanders.

Hastings will come again in force; but in the mean time the land will have rest; and the great Alfred will so strengthen himself in his kingdom and in the hearts of his people, that when the terrible Northman reappears, he will be hunted down until he swim that same river Thames like a wounded stag. Even his wife and children will be seized, baptized, and returned to their chafed lord loaded with the gifts of royal generosity. This is heaping coals of fire on an enemy's head; but they fail to melt his hard nature—they only scorch the revengeful brain of the northern pirate. That man will chasten Alfred's prosperity, and call out the marvelous resources of his great intellect, until the afternoon, if not the very evening, of his day. True, there was a golden sunset; and the calm hours of his closing day were spent in maturing his admirable institutions, and in teaching his beloved people the lessons of wisdom which he had painfully learned in camp, in court, and in hiding-place. Even when he was breathing the disheartening mists of the fenny Athelingay, he was fortifying himself against the miseries of the present, and educating himself for the call of the future, by learning the precious wisdom of the past. He had carried his books with him into his covert—the annals of his poor distracted country—hymns, religious poetry, and, best of all, the manuscript of Holy Scripture. He was sitting apart and reading, when the beautiful incident occurred of the starving beggar, and the halving of the last loaf. David, the minstrel-king of Israel, was the model which he had set before his eyes for imitation; and visions of future victory, of spiritual as well as temporal peace, when God should give him rest from his enemies, may have lighted his dreary "Cave of Adullam."

So illiterate were even the clergy of England when Alfred began to reign, that "very few there were," as he has

himself recorded, "who could understand their daily prayers in English, or translate any writing from the Latin." He adds: "I, indeed, can not recollect one single instance on the south of the Thames when I took the kingdom." But he soon turned his realm into an adult school; for he made even the poor old nobles learn to read as well as the clerks. Slow scholars doubtless they were; and the King, like his step-mother, must needs hold out many a prize in order to stimulate their tardy ambition. The learned men of the past day had almost all perished together with their books; and Alfred had to search all England, and to send literary embassies to foreign lands, in order to secure teachers for himself and for his new University of Oxford. Asser, his future friend and biographer, was found somewhere in the western part of Wales. Grimbald, a learned monk, who had treated with kindness the little Anglo-Saxon Prince of four years, when he was traveling through France, on his early mission to Rome, was sought and found. Perhaps Grimbald's gift of sweet song was remembered after those many troublous years. He became one of Alfred's most congenial companions, and used to soothe the King with his melodious voice. But it was Asser who taught Alfred to keep a Commonplace Book. The Welshman chanced to make a quotation which struck the royal ear. Alfred drew from his bosom his little manual of devotion, and asked Asser to write it down. It was full, and so Asser proposed to make an album, which should receive the stray scraps of learning, that nothing might be lost. The idea takes, and volume after volume is stored with fragmentary wisdom. Now it is a text from Holy Scripture; and then it is some fine classic thought, which the royal scholar renders into his own terse Saxon.

Another important acquisition was the celebrated Johannes Erigena, so called because of his Irish descent. He was a monk of extraordinary acquirements, a learned linguist, and a man whose acute intellect had been turned to the study of the sciences and the arts, as well as literature. He taught geometry and astronomy in Alfred's rising university; while Asser gave lessons in grammar and rhetoric, and John of Saint David's in logic, arithmetic, and music.

But learned fictions must have run high at that day; for John Erigena, either at Oxford or at Malmesbury Abbey, where some assert that he taught, was one day set upon by his enraged pupils, and actually stabbed to death with pen-knives!

But it is time to glance at the Great Alfred as the statesman and the legislator, as well as the warrior and the man of letters. And it is right that the noble sentiment of him, who was the true founder of the British monarchy, should here be recorded, that "*The English should forever remain as free as their own thoughts!*" And yet so firm was the hand with which he administered the laws he had himself made, that he caused golden bracelets to be suspended above the highways, as a test of the supremacy of order; and behold! there was not an arm in England bold enough to dare to take them down. Every where law was triumphant, and the rights of property secured. The land was mapped out into counties, the counties were parceled into hundreds, and the hundreds subdivided into tithings. Regular courts of justice were established; and that noble institution, to which the Englishman clings as the anchor by which he may safely ride in storm or calm, trial by jury, became the law of the land. And if the accused could not safely trust his rights to the consideration of twelve reputable men, his own peers in life, he might appeal onward, from court to court, in the ascending scale of dignity. Thus the wise edicts of the minstrel-king of the ninth century, became the basis of that body of legislation which, a thousand years further on in the life of nations, is known by the name of our Common Law.

His encouragement of learning was so marked that he used to sit, as an eager listener, while the learned men, whom he had trained in his own kingdom or allured from other lands, lectured from the chairs which he had set up in the halls of his beloved Oxford. The language of one of his edicts is so remarkable, that it must here be quoted: "Wee will and command, that all free men of our kingdom whosoever, possessing two hides of land, shall bring up their sonnes in learning till they be fiftene years of age at least, that so they may be trained to know God, to be men of understanding, and to live happily; for, of a man

that is borne free, and yet illiterate, we repute no otherwise than of a beast, or a brainlesse body, and a very sot."

When Alfred was lying hid amidst the dank thickets of the Isle of Nobles, accompanied by the Lady Alswitha, the nobly but not royally born wife, who shared his hard crust, he had vowed a vow unto his God. He promised that if God should give him rest from his enemies round about, and should set him up on high above them that hated him, he would dedicate to His service a third part of his time. The vows of adversity commonly become the broken promises of prosperity; but not so with Alfred. And now see him in the stone-built palace of his kingdom—stone-built, for he sets his face against the wooden houses which had previously satisfied an oppressed people, and which used to burn like touchwood at the kindling of the Danes. He is carefully measuring the twenty-four hours of the day and night into three equal portions. There is not a clock in the land to toll the burial of one hour and the birth of the next. There is not even an hour-glass to be turned by Alfred's watchful hand. No dial-plate has ever mapped out the mystic journey of the day; and perhaps the shadow of some ancestral oak, as it silently moves across the face of a sleeping pool, is the only gnomon which graduates the swift procession of the hours. What will Alfred do? There are six wax candles in the royal chapel,

each of them a foot long, with the inches carefully marked by lines of different colors. Each of these burns for four hours, three inches an hour, the six wax candles thus living through a night and a day. "They did orderly burn foure hours a piece," says Spelman, and it was the duty of the keepers of the chapel-royal to go and advertise the King how the colored hour-lines were consuming in their turn. To shield this little torch of Time from wavering before the breath of chance-winds, it was placed in a lantern of thin white horn with a frame of wood, the King's own happy contrivance, and thus the thrifty economist knew when to give his eight hours to God in devotional services or pious works; his eight to the affairs of his kingdom, and the remaining eight to a short sleep, to hasty meals, and to some precious hours of study. This was the man who had fought fifty-six pitched battles with the Danish invaders, and whose days and nights were passed in almost continuous suffering from some incurable malady!

But the candle of the great King's mortal life, with its many-colored hour-lines, at last burnt down into the socket. The hours of service to his people, and the hours of devotion to his God on earth, were told out when he had but just reached the fifty-second year of his age, and the twenty-ninth of his reign; and so, in the year 900, the Great Alfred entered upon the hours of his rest.

From Chambers's Journal.

T H E M O D E R N B A S I L I S K .

EVERY body has heard of the basilisk, which was supposed to fascinate you with its eye; but the basilisk that has appeared in our day has no eyes, and fascinates one—I don't know how. It has five digital members, which I am sorry—for euphony's sake—to say are called toes; these are connected by joints to an undulating body which terminates—what a horrible

language the English is!—in a heel; and the whole is attached, I am happy to say, to an ankle. These several items, when encased in a covering of kid—which matter-of-fact Crispins harshly term a boot—fastened by means of a lace which runs through brass-protected holes, covered with patent leather at the extremity, and provided at the heel with a sole *à la mili-*

taire—a very nice way of doing a sole—form altogether a very formidable basilisk. The priest, the warrior, and the philosopher own it is irresistible. I have myself heard priests acknowledge as much; warriors make no secret of it; and the philosopher is notoriously the first to succumb to its influence, probably because in pensive meditation his eyes are ever downward—for it is most frequently seen tripping over the ground. It attaches itself, with singular good sense, exclusively to the gentler sex; indeed, many ladies carry a couple with them wherever they go; and many who are not ladies are accompanied by the same number, for the basilisk is by no means of an exclusive character. It is very seldom found in quite a perfect form: it is, judges will tell you, either too long or too short; too broad or too narrow; too taper in front, or too protuberant behind; but even modifications of the model shape possess vast fascinator powers, and hold the helpless gazer spell-bound. In a fashionable promenade, it is no uncommon thing to see quite a crowd of people, with their eyes riveted upon one of these charming objects, whilst the owner is herself (apparently) unconscious of the eye-compelling properties of that which she exhibits. It is set off by what mortals with material minds do not hesitate to term a stocking, which is white or party-colored, plain or open-worked, according to taste and fashion; and it is overshadowed by—may one say a crinoline?—which, particularly when formed of a scarlet substance, has been known to add much to the otherwise bewitching creation. Beneath this drapery the basilisk sometimes lurks, and sometimes peeps suddenly forth with a very startling effect. It assumes a diversity of positions, each full of grace and enchantment. It is seen to very great advantage when resting upon the step of a carriage; and such was the shock to a young friend of mine who discovered one supporting itself on the drawing-room fender, for the sake of the genial warmth, that he was seized with a violent palpitation of the heart, and though generally very talkative, was reduced to perfect silence; for if you can only find power of speech, the spell is broken, and your eyes are withdrawn.

It has not the baleful influence of the fabled basilisk: it checks not the growth of children; indeed, it is credibly reported to be an incentive to marriage: peers and

men of fortune, commoners of eminence and men of no fortune, have had no better excuse for matrimony: to the spinster with riches, it often refuses its aid; whilst to the spinster with none, it is often a dowry, and a very handsome dowry too. Scarborough is the favorite resort of the basilisk; it issues daily from the "Queen" during the autumn, and disports itself among the rocks; and it entraps many victims upon the "Spa." In the winter, the lover of natural history will do well to look after it at Brighton; and during the London season, it principally delights in the "drive" and Kensington Gardens. Wherever a military band plays, exquisite specimens of it are sure to be observed; and a trustworthy newspaper lately gave an account of the strange fascination which it exercised upon a Rifle Volunteer. Among the patriotic lady-visitors who came to smile approval upon the drill of a certain regiment, was a beautiful young creature who possessed two of those pretty satellites, one of which she considerably displayed for the encouragement of the whole company. Number Twenty immediately was "struck;" his eyes remaining fixed upon the basilisk before him. "Eyes right!" roared the sergeant who was superintending the drill. Number Twenty considered that his eyes were decidedly "right." "Eyes left!" bellowed the sergeant; but Number Twenty couldn't do it. "Number Twenty, ten paces forward." Number Twenty obeyed with alacrity, for it brought him nearer to his object. The sergeant then gave the order to "wheel" and "quick march," and Number Twenty was left solitary. The young lady withdrew the basilisk beneath the drapery before alluded to, and Number Twenty with a sigh found his optics free to act. Lonely, he wended his way homeward, and resigned his position as full private in the aforesaid volunteers.

I have myself fallen under this influence and narrowly escaped unpleasant consequences. Melancholy news had summoned me on that occasion to Hastings; and having been in no humor to court enchantment, I am at liberty to aver that my bewitchment was involuntary. Scarcely before the train started did I reach the well-known platform at the London bridge terminus; hastily was I inducted into a carriage, and more hastily did I fling my lighted cigar out of the

window, (for, alas! I was young, and had been inveigled into smoking,) when I found that all the places except one were occupied, and occupied, too, by ladies. It was evident that my entry was unfavorably regarded; and I heard disheartening whispers of "dissipated young man;" handkerchiefs, too, superabundantly scented, were applied to olfactory organs, in an insinuating and aggravating manner; nor could I help saying to myself, (in private extenuation,) "their abominable scent may be as disagreeable to me as my tobacco is infamous to them." I tried, however, to make peace with my fellow-travelers in every way I could think of. I offered one old lady the *Times*, and was stiffly informed that she never read any paper but the *Record*. To another I presented, with my very best bow, the last issue of a humorous publication, which she just glanced at, and then returned to me with a smile of pity and disdain. A third assured me that she was very much obliged to me, but never could read in a railway carriage. A fourth said bluntly that "it smelt of smoke, and she supposed I didn't wish to make her ill;" and the fifth, to whom I sat opposite, I dared not address, she had upon her countenance so heart-rending an expression of ineffable contempt. I don't think I shall ever forget her, and reasonable people will consider it wonderful if I should. She was—I don't know how old, for of course I didn't ask her, and I'm not an *Œdipus*, but I should say—about eighteen. She was very delicate evidently, and very pretty, also evidently, and she put forward, as if to daunt me, the daintiest pair of basilisks which I ever saw in my life; and they certainly did daunt me. I drew my clumsy muddy boots back as far as I could, and thrust them under the seat upon which I sat until my knee-caps suffered grievously, but as for withdrawing my eyes from the enchanting objects, it was almost an impossibility. I considered it a providential arrangement that she should be going, as in the sequel appeared to be the case, to Hastings, whither I was bound, for I firmly believe that wherever they got out, I should have got out and followed them until they disappeared. It was of no earthly use attempting to extricate myself: if I looked at the roof, my eyes were brought down, as if by physical force, until they rested upon the magic spot; if I made a feeble effort to admire

the country through the window, the result was the same; and if I essayed to read either of my ill-treated papers, every word was transmogrified into "boots." So I resigned myself to my fate; and it was not a very harsh fate either. Once I fancied I saw her smile slightly, as she observed my frantic efforts for freedom of vision, and the despairing manner in which I yielded to destiny; but it was any thing but an encouraging smile, and was succeeded by a most significant application to her smelling-bottle, as if to remind me of that horrid cigar. I made an inward resolve never to smoke again, though a Cubana king should be the temptation; but I shall not make an affidavit that I have kept that resolve; for I considered that the melancholy event with which my journey was brought to a close, left me perfectly free to injure my health in that manner as much as I pleased. There were prophetic warnings and portents as we jolted along, which would have been sufficient, under any other circumstances, to make me very cautious and watchful; but I was now in that comfortable state of mind, or absence of mind, which is popularly supposed to belong to him "*quem Deus vult perdere*." I fancy I must have felt very like Merlin, after he had been subjected to the "charm of woven paces and of waving hands," for what with the melancholy telegram which had summoned me from town, and the sneers of the anti-cigar party, and the pangs of conscience, and the fascination to which I was exposed, I felt—to use a more expressive than learned phrase—exactly "as if I couldn't help it."

At Reigate there was an evil omen: the lady who read no paper but the *Record* inquired of me what station it was. I answered, carelessly, "Boots!"

"Sir!" says she.

"I beg your pardon," said I; "did I say 'Boots'?"

"You did, indeed, sir; and I don't know what to understand."

"I assure you, ma'am," said I, "my head is so confused that I hardly know what I am saying; pray, excuse me. The station is Reigate."

On we rocked, and I knew the eyes of the Recordite were upon me, though mine were constrained to continue their task of involuntary, inevitable staring; and I heard from the hum of voices around me that they were conversing of lunatics and

idiot asylums, and it struck me I had set their ideas running in that direction.

"Pray, sir," said the severe old lady who had objected point-blank to the smell of my papers, "did *you* ever visit one?"

"Yes, ma'am," said I, "I have been to Colney Hatch," (significant smiles exchanged.) "and very much pleased I was with my visit. It is very interesting to watch the eagerness with which the poor creatures pursue any study which by much toil and trouble they have been brought to master, and the patience and attention displayed by the teachers is really a very great lesson."

"Did you observe any thing which particularly struck you, sir?"

"Oh! yes. There was an orphan girl who very much attracted my notice; she looked so sweet, and gentle, and innocent, it seemed to me a pity to attempt to teach her any thing; and" (here my *vis-à-vis* put one boot over the other) "she had such dear little feet!"

Just as I had finished this observation, which my questioner evidently considered quite irrelevant, for *she* didn't believe in

any kind of witchery, we grated into the Hastings station. My *vis-à-vis* now for the first time opened her lips.

"Will you be kind enough, sir," said a soft sweet voice, "to give me my parcel from under the seat?" Like lightning I bent forward, and senselessly supposing that she meant under *her* seat, caught hold of—gracious goodness! the two pretty things which had been enchanting me. It was only for a moment; there was a little shriek of horror from her, and a look of wonder from our fellow-passengers. "Under *your* seat, sir, of course," said she, "I can't think how you *could* make such a mistake!"

But as it evidently *was* a mistake, and as I apologized in a manner more than abject, and as my fellow-passengers were kind enough, notwithstanding the matter of the smoke, to advocate my cause, she with a musical laugh forgave me, and hoped I should know better another time. For my part, though I daredn't say so, I feel convinced it was fascination, and that I was under an irresistible influence.

T H E Q U E E N ' S M E S S A G E .

WHILE the fate of the two hundred unfortunate miners, lately killed at Hartley Colliery, was still uncertain, a telegram was dispatched to the North from Osborne, inquiring by her Majesty's command: "Is there hope?" The following lines, by ISA, have appeared in the *Scotsman*, in commemoration of this touching incident:

Not to her Peers or Parliament,
Her soldiers or her lords,
Not to the waiting nations went
Our Sovereign Lady's words:
She claimed no loyal service,
No love or honor due—
O mourning wives and mothers!
Her message is for you?

Where England's richest harvests
Are gathered 'neath the soil,
More than two hundred men and boys
Went to their daily toil;
Down in the earth's dark chambers,
They wrought till fell the doom;
And the pit shut its yawning mouth
Upon their living tomb.

VOL. LVI.—NO. 1

And swiftly spread the tidings,
First told with bated breath;
"More than two hundred living souls
Down there shut up with death."
There ran a thrill of horror,
Through all above the ground,
Up to our mourning Queen, who rose
Amid her grief profound.

"Is there hope?" she asked—the question
They ask, with pleading eye,
In palace and in cottage,
Who stand where death is nigh.
"No!" all around the pit's mouth
The wailing women go;
Till they who toil to rescue
Sob out the dreaded "No!"

The message of our widowed Queen
Came to each widow there;
"My heart bleeds," suffering sister,
In your grief I have a share.
Oh! when such holy healing
Did royal lips impart?
Thy message, Sovereign Lady, made
A nation of one heart.

From the Dublin University Magazine.

WEDDINGS AND FUNERALS IN POLAND.

It was the morning of a lovely day in the month of July, 1849. I am particular as to the date, because the great and destructive fire, which I hope some time to describe, occurred in the following year. The sun had risen on the city of Cracow, which never looks so beautiful as in these early hours, when the strong brilliant rays, streaming down on the gilded towers and spires of the numerous public buildings and sacred edifices, cause them to gleam and flash here and there all over the whole area of the city as if they were the footprints of the sun—when the crafts in the broad glowing river swing idly in their moorings—when the rosy clouds spread themselves like a curtain over the summits of the mountains, while the varied and gorgeous tints of the woods which lie at the base and stretch far up the sides, resemble the luminous foliage in the pictures of Claude, who spent whole days in watching the effect of atmospheric changes on forest scenery, leaving, as the result of his life-long observations, finished studies of leaves, and a landscape which he considered his *chef d'œuvre*, in which the infinite variety of trees reminds one of the garden planted eastward in Eden.

I was dressed, and partaking of a delicious breakfast, consisting of tea, chocolate, fresh bread, fresh butter, honey in the comb, and a variety of light cakes, before the first sweet tones of the church bells filled the silent city with harmony. There is less difficulty in having a comfortable early breakfast in Poland than in any other country I know of—England not excepted—the custom, in all well-regulated houses being to prepare it with the earliest dawn, lay it out with unsparing profusion in the dining-hall, and allow each member of the family to partake of it when most convenient. Thus, in the establishment of a nobleman, the family physician very frequently is the first to breakfast, passing the quiet hours, before the clamor of the awakening of a great household commences, in his study, or in visiting the sick poor. The head of the

family may have his sent up to his chamber, or with his sons he may partake of it in the breakfast-room previous to joining the hunt, while their beautiful Ukraine coursers paw the gravel in front of the windows, or shaking their long manes and tossing up their intelligent-looking heads, express by their neighings their impatience for the chase. The ladies are the last to appear, and as in general they attend mass before they breakfast, their tardiness can hardly be considered reprehensible.

I may as well mention here that some of the finest horses in the world, and some of the best horsemen, are to be found in Poland. The Hungarian proverb, "*Lora termett a Magyar*," is equally true as applied to the Poles. The very term "*equestrian order*," used to distinguish their nobles, proves the value set upon good horsemanship by a people who once rewarded with a throne the victor at a horse-race. The fortunate winner was Duke Leck, and though it is said he gained the prize by stratagem, he proved himself a wise and valiant monarch. He was cotemporary with Charlemagne, over whom, Polish historians say, he gained two great victories. The point from which Leck, and the others who competed with him, are said to have started, is marked by a little cairn on the bank of an inconsiderable rivulet about two English miles from Cracow, while the place of the stone pillar on which the ensigns of royalty were laid, and which Leck had touched with his hand before the others rode up, is covered by the handsome *Porte de St. Florian*.

But to return to the events of the bright July morning. I was engaged to be present at a marriage in the family of a Polish nobleman, residing some miles to the north-west of the city, and a young friend, Jozef Nowosielski, who had also received an invitation, had offered to drive me there in his own little carriage. Immediately after I had breakfasted, I sent a servant to Pan Nowosielski's villa in the

Przedmiescie, or suburbs, with a small portmanteau, myself following on foot. There were but few persons traversing the streets, and most of these were entering the wide open doors of the churches. Many of the shops were closed, while others were half-open, and the light was struggling in and glancing on pretty Parisian bijouterie, which women in bright, but singularly negligent-looking morning dresses, were rearranging and freeing from dust. I went on, the sun was rising higher, and country people, with their farm produce, were coming in, looking cheerful and talking gayly, as people will look and talk in the morning, when they are feeding on pleasant hopes, which the day's experience may destroy. I, too, was gay as the gayest, forgetting that the shadow of death had ever fallen on the earth, when suddenly I found myself face to face with the reality. I had turned out of Grodzka street, near the magnificent church of St. Peter, in order to get to the Boulevards, and through it to the Przedmiescie, when, before I was aware of its proximity, I almost touched a coffin-lid, which was laid against the wall of a house, the second or third from the corner. Had I been in my own country, I would have passed on, my spirits checked no doubt by a memento so melancholy and so suggestive, but in Cracow I followed the example of others, and stopped to read.

On the lid was a mourning card, on which was inscribed the name of the deceased, her age, the hour of her death, and the time appointed for her interment, followed by an invitation to "the public" to attend the funeral and join in the services then being performed in the house. Above the card hung a beautiful myrtle wreath, tied with broad white ribbon, symbolizing the youth of the departed, and that she had died unmarried. No one passed by without reading, many who read entered the house, while of those who did not enter there were but few who did not murmur "Requiescat in pace," as they hurried on in pursuit of life's business or amusements.

I entered. A servant in deep mourning stood near a door to the right in the hall, over which hung a heavy black curtain; he lifted this, and opening the door, I stood in the *castrum doloris*, a large room from which the beautiful light of heaven was shut out, and the strange un-

earthly glare of numerous yellow wax tapers in tall candlesticks substituted. In the center, on a catafalque, was a coffin lined with fine white cloth, at the head was a pillow covered with the finest lawn, trimmed with the richest and most delicate lace of Mechlin, and stuffed with the softest down; pressing heavily on this was the fair young head of Panna Marysia Sobolska. She was dressed as if for a morning fete: the high robe of rich white satin fitted closely to her beautiful throat, the plaits of the full body lay gracefully over the exquisitely formed bust, and the folds of the ample skirt were arranged with perfect simplicity and taste, giving a mocking expression of life to the dead. Her small delicate hands, which even the pencil of Vandyck could not rival, clasped a crucifix, which rested on her bosom.

As I stood gazing on that melancholy picture, I was for some moments unconscious of the continued sound of one voice, until the sweet tinkling of a small silver bell, accompanied, or rather immediately followed, by a low murmur of many voices, caused me to turn suddenly round, when I perceived that I had been standing with my back to an altar, at which a Roman Catholic clergyman was celebrating the mass for the dead.

I moved at once from the foot of the catafalque, and then my eyes rested on a scene never to be forgotten. The young dead—the sorrowing friends, their eyes fixed with a sad, questioning gaze on the motionless form—the strangers, some like myself, unused to such ceremonies, standing silently but reverently apart, others joining in the services—the small chastely ornamented altar, with its mourning draperies—the priest in his black pluvials, and his attendant acolytes—and with these, the dreamy, monotonous voice, and the low, soft chanting. A gentle touch on the shoulder from one beside whom I had been standing, recalled my attention to the circumstances passing around me. The priest who had officiated was approaching the faldstool near to which I stood at the head of the bed, followed by his attendants. I moved aside. The priest knelt for a moment, then arose, and bending slightly over the unmoved upturned face of the dead, pronounced the benediction. Sweet voices took up his last words, singing: "Come to her succor, ye saints of God; run to meet her, ye angels of the Lord; taking up her

soul and presenting it before the face of the Most High."

I waited only for the conclusion of this chant. Lifting the black curtain, I passed through the dim hall into the life and bustle of the street.

My friend's carriage was at the door when I arrived, after a hurried walk, during which I had neither looked to the right hand nor the left, after I had quitted the house where lay the young dead. He was pacing up and down with a quick step under the handsome piazza of his house, and as he seemed impatient at my being so much later than I had promised, I jumped at once into my place, reserving my apologies for a more propitious moment. A description of the various scenes and scenery of that one morning would fill a large-sized volume; and as such is not my present object, I shall pass on, just glancing at the various styles of architecture which occur between Cracow and the Okrug, or district, in which Count Andreas Zaluzianski, whose summons we were attending, resided.

Near the city, handsome cottages are general, some with picturesque porticoes, adding considerably to the elegant appearance of the exterior of the buildings, but greatly impairing the cheerfulness of the interior, by excluding a considerable proportion of the beautiful sunlight; while others, like the enchanting abodes in the valley of the Rhone, are covered with lattice-work and roses. As you advance into the country, villas, having some pretensions to being extensive piles of building, occur at frequent intervals, many of them weather-stained, though not ancient, bear the stamp of Italian taste in the tall fluted columns of the piazzas, having masks and busts for capitals. Others are more modern, and one can easily trace the skill and judgment of the French in structures which combine ornament and utility with strength. Less numerous than the villas are the gray mansions whose simple grandeur is shaded, but not hidden, by the magnificent pleasure-grounds which partly surround them; and as we drove past, we more than once had glimpses of the ruins of palatial residences in the dark pine forests which crown the rising grounds at the rear. Many of these are Grecian in character, belonging to the time when Boleslaus the Third, after a short resi-

dence in the Greco-Russian town of Kiew, introduced into Poland a taste for imposing and picturesque architecture; while a few are of the era when the lovely, graceless Bona Sforza endeavored to create in Poland scenes similar to those she had loved in her early youth in beautiful Milan.

These Italian palaces are much more crushed by Time's footsteps than any of the other ruins; and in close proximity to more than one of them, are majestic and extensive chateaux, not crumbling to decay, but in their pristine strength and grandeur, challenging our admiration, and recalling the memory of that sad romantic episode in history, when the structures were raised under the direction of the gifted Barbara Radzvil—the hated daughter-in-law of Bona Sforza—the adored wife of King Sigismund Augustus, whose emphatic reply to Primate Dziejowski, when he tried to induce him to consent to a divorce, offering to distribute, like small dust, on the heads of his enemies, his sins of perjury and desertion, consisted in placing the regal diadem on her brows.

It was past noon when we stopped to give our horses rest. We had been for some time on the broad road which winds round the base of the Wenda, slightly ascending. It is a pleasant, well-engineered road, made by the Austrians, being one of the very few benefits for which the Poles are indebted to them. On one hand the dark pines stretch to the topmost heights of the mountain, raising their feathery heads in triumph into the upper air; on the other lie meadows clothed with short succulent grass, and fields of the rich Sandomir wheat, known amongst us under the general name of Polish wheat. A bright streamlet, sparkling and murmuring, as if giving utterance to its gladness at escape from the dark mazes of the forest, led to our choice of a resting-place. Disappearing beneath the road for a moment, it comes babbling up on the other side, illumining the meadows as it sparkles through them, till it joins another bright little stream, which turns a mill near the city. Just where this tiny rivulet escapes from the wood, there is a stone set up, pointed out to travelers as "Wenda's Chair," but whether or not the princess (after whom the mountain is named) rested her weary limbs on this rude seat before she sought delusive rest for her

still more weary heart in the mountain torrent, which tradition makes this stream of old, it would be difficult now to determine. It answered all the purposes of a table for us, while sitting eastern fashion we dispatched biscuits and wine; and had it, like our own "Lia fail," which now lies under the coronation-chair at Westminster Abbey, the power of uttering sounds, it might, as it is the trysting-place of all the young peasants in the district of Cracow, have amused us by the revelation of many a history as strange as Wenda's, who gave the homage of her heart to one to whom she was an idol, of whom all her people approved, and yet whom she rejected and repelled, because he betrayed, before he had the right to rule, his opinions of a wife's obedience.

Prince Rudiger was a German. Had he been a Pole, a Frenchman, or an Irishman, he would never have fled from love to war; he would have remained to calm and soothe and win instead of leaving a breaking heart behind him, which in folly and ire he collected troops to conquer. Wenda met him in the field surrounded by a numerous army. She advanced to the front, pale but looking more lovely than ever. The victory was won. Love's vengeance—if love can seek it or accept it—was complete. Rudiger's soldiery refused to acknowledge any other cause but Wenda's, and while he stood motionless, as if not knowing what course to pursue, he was cut in pieces by over-zealous courtiers, who, too late, heard the despairing shriek with which "spare him—save him," was uttered.

In the pale starlight of the next night young fishermen drew from the mountain torrent the stiffened dripping form of Wenda, Duchess of Cracow, and daughter of Krakus, the founder of the city.

This story is perfectly true, though omitted in some histories, and in others rendered doubtful by fabulous embellishments.

Having poured some wine, according to custom, on the "chair," we proceeded to walk through the wood, ordering the groom to take the carriage round to a certain point to meet us. We were soon in shade, but not in gloom, for the sun was glancing down through the feathery canopy, and reminding us of his presence by little bits of brightness here and there.

The path was broad and well trodden, and my friend was as well acquainted with its intricacies and windings as the mountaineers whose wooden huts are scattered up and down even to the top of the highest peaks. Very soon we heard the woodman's ax, and in another direction the song of the barkers; then, almost suddenly, we came on a group of five or six men down in a dell, formed on one side by a great rock covered with moss and lichens, and on the other by a high ridge and a cluster of oak trees, of which there are only a few hundred in the forest. The men, who were hardy, fine-looking fellows, were dressed in the peculiarly picturesque costume of Carpathian mountaineers—a close-fitting white leather suit, a loose graceful-looking short brown cloth cloak, round broad-brimmed hat, and brown sandals. The long tangled locks of these men, which descended to their girdles, seemed to stand miserably in need of the good offices of a barber.

I asked Pan Nowosielski if he was not of my opinion.

"No," he replied, "the services of a hairdresser would by no means be appreciated by these primitive fellows. I shall give you an apropos instance. A young friend of mine, who once, I dare say, entertained your views on the subject, made an excursion some short time ago into the Carpathians. He wore his hair, as all our artists usually do, rather long. His mountain guide noticed it, and one morning remarked, 'that to make it look so nice he must brush it frequently.'"

"'More than once a day,' was the reply.

"'Ah! how your head must ache!'" answered the other, with a look of deep commiseration.

"'Why?'" inquired young Grzebski, in unfeigned surprise.

"'Because, sir, I, though I only brush mine thoroughly once a year, for the Easter holidays, have such pains in my head for six months afterward.'"

While listening to Pan Nowosielski's amusing anecdote, I was intently watching the men. They had fallen into a circle, each of them holding in his hand a wooden shovel, having a handle three yards long. From the center which they surrounded, I could see now and then flames bursting up, and licking the

side of a huge caldron which was partly buried in the earth. After a few moments one of them stooped and looked cunningly into the great pot, and then every one plunged in his wooden shovel, and began to move round, thus causing a rotatory motion to the contents of the caldron.

"They are making *pswidtta*," observed my friend, in answer to my inquiry as to what they were doing.

Pswidtta, as I afterward learned, is a jam made of Hungarian plums, and always manufactured in the way I then witnessed. The plums are first well washed by laying them in wicker baskets placed in a running stream. They are then put in caldrons sunk in deep holes made in the ground, with sufficient space left under them for a good fire. As soon as the fruit begins to boil, it is stirred with wooden shovels until it becomes quite thick. The plums are so ripe and so sweet that no sugar is required, and the sale for it is very considerable, especially amongst the poorer classes, during Advent and Lent.

The love of these mountaineers for their twilight homes is astonishing; they seem never to have a wish to look on the broad expanse of the sky, to see the earth in the soft fresh beauty of spring, or in the glow of summer loveliness, or in the richer and riper beauty of the autumn—to gaze on the lakes when a roseate calm rests on them, while every object in remote perspective is bathed in the intense azure which reminds one of the pictures of Poussin, who transfused the very hues of the elements into the background of his wonderful landscapes. Even those whose homes are not under the shadow of trees but whose wretched wooden huts hang on the bare rugged sides of the mountains, dwell up there in the brown world in a state of contentment so perfect, that I know of no nearer approach to happiness than that they enjoy on this side the grave, until the first keen blasts of winter come with their wailing sounds through the trees, and the snow has appeared on the topmost peaks; then they descend unwillingly to the valley, from which all beauty has passed away, and hasten to the towns and villages in search of homes and subsistence during the winter.

The warning for their migration is the first fall of snow, and this occurs so frequently on or near St. Martin's Day, that

it has given rise to the popular saying: "St. Martin arrives on a white horse." On the same day it is usual, at least among the agricultural classes, to serve a goose for dinner, and afterward to draw conclusions from the color of the breast-bone relative to the approaching season. When the bone exhibits a good fair color, a heavy fall of snow is predicted; but if it is dark, a long continuance of frost may be expected. On the eve of St. Martin's Day, the daughters and maid-servants of farmers pretend to determine, by the appearance of the sky, the amount of profit which they may expect through the winter from their dairy and poultry. A clear blue vault affords the pleasant hope of an abundance of milk and butter, while a firmament spangled with myriads of stars, indicates an ample supply of eggs. The mountaineers, however, have neither herds nor flocks, and consequently have no interest in, and almost no knowledge of, the superstitions of the people of the plains.

The imagination can picture nothing more singular than the appearance of a number of families descending from their heights, burthened with all their worldly goods. The snow generally meets them half-way, if it is not already lying calm and cold a few inches in depth on the ground before they set out. All—men, women, and children—carry bundles or packs suited to their strength and size; but as none of them ever carry either bed or bedding, I suspect that, like the Israelites of old, the garments they wear during the day, serve them for covering at night.

Many of the women have two, or even three little children tied on their backs; others trip lightly under the weight of good-sized panniers filled with strings of dried mushrooms which they hope to sell to the people in the towns; boys are laden with mouse-traps, their own manufacture, or carry huge though light piles of kitchen utensils which they have assisted in the making of; while men trudge along, having boxes strapped to their backs resembling those of our own itinerant tinkers, only larger, and filled with instruments necessary for mending broken crockery and tin-ware, or bend under the weight of long linen bags filled with dried pears or plums. Loquacious and happy, on they go in a straggling body, the crisp snow under

their feet making melody to their ears, and the leaden sky being no more than they expected. As soon as they come to a village or to the "Przedmiescie" (which simply means "before town") of either Cracow, Kielce, or any other considerable place, they separate, each family shifting for themselves.

It was late in the evening when we reached the chateau of Count Zaluzański, where we were received at the door by the domestic chaplain. We entered a spacious hall, literally crowded with servants, not standing idle, or making a display of their usefulness by moving obsequiously aside as we passed, or gliding before us to open doors, or to announce our presence, but absolutely flying from place to place with countenances expressive of utter bewilderment. Whether, however, this was owing to the amount of miscellaneous duties imposed on each, or to household mismanagement, or to the bustle inseparable from a marriage, or to all these causes united, the reader may decide, after I shall have enumerated the usual number of individuals forming the establishment of people of distinction.

The domestic chaplain, the family physician, the tutor and governess I regard as members of the family, as forming a portion of the exclusive little clique, whose wants, real or artificial, require the attendance of the following individuals: First the *maitre d'hotel*, who has the charge of the whole house and household in general, and of the numerous footmen in particular. He receives, from the heads of the family, all the orders which they deem it necessary to issue, and is required not only to transmit them to those who are under him, but to watch that they are properly executed. When visitors are expected, it is the *maitre d'hotel*, and not the housekeeper, who selects the rooms to be appropriated to each, and then makes out a list for the storekeeper of bedding, and a certain number of towels, and toilette-covers, with curtains and other draperies, suited to the size and decoration of the rooms. The writing-tables in the bedrooms or dressing-rooms are always particularly attended to in Poland, and these also are under the superintendence of the *maitre d'hotel*, who furnishes them lavishly with pens, ink, and paper, besides a

variety of pretty seals, of all which he keeps a large store.

Next in importance to this personage is the "credencier," to whom is intrusted the care of the plate, china, and glass. A novitiate of many years is necessary to entitle a servant to this post, and none are ever placed in it whose future may not confidently be anticipated from the report of the past. Strange as it may seem, it is the credencier and not the cook who prepares breakfast, and who may be seen at early dawn following the footmen into the breakfast-room, to see that the appointments and arrangements of the table are complete, and that nothing has been forgotten necessary either as aliment or ornament. The housekeeper ranks next; she has the charge of the house-linen, and of a large proportion of the stores. The valets follow—my lord's valet, whose duties and functions are, I suppose, the same all over the world—and my lady's valet, to whom Polish etiquette assigns the exercise of various personal attentions. His hand alone offers my lady her letters, takes from her those to be dispatched, dusts the bijouterie of her boudoir, keeps her writing-table supplied, and arranges her books, removing those to which she appears indifferent, and replacing them with others either more popular, of later date, or more beautifully bound.

The waiting-maids, and the footmen, of whom there are a perfect mob, fill the next station. The head cook and head coachman rank after these, then the head groom and his staff—the chambermaids, who have the unique duty to perform of ironing every morning all the under-clothing worn by my lord and my lady and all their children and guests on the previous day—the laundress and her assistants—the cook's assistants—the little maids who wait on the other maids, run errands, and gather flowers for the various rooms—the postman—the watchman—the water-carrier, and the man who sweeps the corridors, brings wood from the cellar, and heats the stoves. Over all these, ranking next to the physician, are the cashier and the book-keeper, taking precedence of even the *maitre d'hotel*. Many who will read these pages may perhaps conjecture, that in this enumeration I have drawn on my imagination, that I am guilty of the error

of "causing to appear," as established facts, circumstances which have no existence except in my own mind. To such, (if there are any such,) I admit that the roll is not perfect, but its defects are not the result of my inventive faculties, but of my bad memory. I had forgotten the gardener and his staff—the baker and his helpers—the woman and her assistants who mind the poultry—the people who have the charge of the dairy—the men who clean knives and polish boots—and the throng, whom I am at a loss how I should designate, of the servants of the servants.

As I have already stated, we were met at the hall-door by the chaplain, who politely remained with us until our portmanteaux had been taken from the carriage and placed in the hands of two footmen, who passed them on to two others, who gave them to the valets appointed to wait on us. These men, with a bow which reminded me of the deferential French servants, passed on before us, leading us to our respective apartments. Some hours after I was in the grand saloon, making one of a brilliant company assembled to witness the next day's solemn event. A glance at the furniture of the gorgeous room, and the dresses of those who occupied it, satisfied me of the low condition of the industrial and commercial state of Poland. Vienna, Berlin, Paris had each contributed to create the rare and tasteful splendor which surrounded me—Cracow nothing.

In the deep recess of a window, almost concealed by a snowy alabaster vase from which blushing flowers diffused sweetest odors, sat the bride, a pale, handsome girl, with hope sparkling in her intensely blue eye, and the most perfect calm resting on her fair open brow. Several young friends were standing or sitting near her, but her betrothed was at a distance, leaning over the back of her mother's chair. In the course of the evening music was introduced, and the exquisitely beautiful national melodies of Niemcewicz, the "Tommy Moore" of Poland, shared the admiration of the guests with the ballads of Casimir Brodzinski, the warrior-poet, who, in early life, mistaking his vocation, believed that the trumpet-peal and the clash of cymbals were the only sounds to which his heart could respond; but, living to discover his mistake, he had the noble courage to acknowledge

it, and giving up the sword for the pen, the trumpet-blast for the warble of the flute, he has left an undying reputation in his sweet "village songs," and the admirable tragedy of "Barbara Radziwill."

Tableaux vivants succeeded music, and some of the dazzling creations of Vladislaf Oseroff were represented to perfection; but the picture of the evening, strange to say, was taken from Rileyeff's historical poem, *Naleyveko, the Hetman of the Ukraine*. In this piece the gifted author prophesied his own tragical death in the speech which he puts into the mouth of the rebel hero, when admonished of the danger of his enterprise by a priest to whom he confessed his intention of raising the standard of revolt, and leading the people against their Polish oppressors:

"Midst the dread battle's bloody tide, there let me find a grave,
If but my country's chains are rent, and freedom glads the slave.
In the yawning trench, in the deadly breach, let Naleyveko fall.
Let a felon's death on the scaffold high proclaim aloud to all
That a patriot's bosom knows no fear, no duty but to die,
When his bleeding country's cause is lost, and crushed for liberty."

A few years after the publication of this piece, Rileyeff was executed for heading a conspiracy against the Emperor of Russia, while many a young brow which I had seen that evening flush with enthusiasm at the mute delineation of the thrilling incidents of the story of *The Hetman of the Ukraine*, before the sun had run another course, was laid in the

"sacred grave
Of the last few who, vainly brave,
Die for the land they can not save."

There was no dancing, and we separated early. I do not know whether many of the guests slept well that night; I only know that I did not; that I was conscious of hearing all through light steps along the corridors, whispering voices, doors opening and closing stealthily, and the tinkling sounds of plate and glass borne from the stores of the credencier and housekeeper to the dining-rooms. At length the dawn appeared, and presently after it was clear day. The soft rosy morning light is very brief in Poland. The grand broad disk no

sooner appears above the horizon than light in its fullness and strength is around us. With the night departed all necessity for hushed words and heedful movements. The tread of men was heard in the halls; the voices of gentlemen came up like rich music from the lawn, while light, quick footsteps and soft, joyous tones were echoing from every dressing-room, and passing continuously through the corridors.

I shall never forget my feeling of amazement while traversing the passages and halls, on that eventful morning, which led from my dressing-room to the saloon in which the sumptuous breakfast had been prepared. When I opened my door I stepped into a bower. Along the whole length of all the noble corridors, galleries, staircases, and halls, there were placed, at frequent intervals, vases of costly porcelain, urns of pure marble, baskets of delicate alabaster, all of them filled with orange blossoms, roses, and other flowers of rare beauty and perfume. Over the doors and windows garlands hung gracefully amidst the drapery, the pillars were wreathed, and even the statues were made to harmonize with the fanciful luxury of the occasion, by the delicate taste which had strewn rosebuds at their feet, or placed pale blossoms amongst their marble wreaths. Imagine the whole house, from the cellars to the attics, thus embellished, as if the earth had been ransacked to render its floral splendor perfect; and imagine it then peopled with nymphs in the brightest and most fanciful of national costumes, and having their hair, ornamented with flowers, falling in massive braids on their shoulders. These were the servants, flitting from room to room, assisting the ladies in their toilettes, or merely gratifying their own curiosity, being always allowed considerable liberties on the occasion of a marriage, when almost the only rule which they may not transgress with impunity is that which prescribes the national costume, and from this no one dares to deviate except the housekeeper and ladies' maids, who are privileged to appear in the grosser splendors of silks and velvets, being usually the wives and daughters of the poorer class of the noblesse.

At about eleven o'clock the carriages were brought up, one after another, in dashing style to the door, rich white ribbon streaming from the horses' heads.

Every one knows what the pleasant confusion of such a moment is in Britain, and in Poland it is in nothing different. The bride and bridegroom had been, as is usual, at an early mass in the private chapel, at which but a few of the near relatives had been present; had made confession of their sins, and received the communion; they were now to plight to each other their troth in the parish chapel, in the presence of their assembled friends and acquaintances. We drove off in high spirits, our path was strewn with flowers to the door of the church, and besides this, young girls with baskets on their arms were stationed along the road, flinging handfuls of roses under the horses' feet, as the bride's carriage rolled onward.

On arriving at the church, I was amazed to see, that instead of the bridegroom, two young unmarried men advanced to the bride's carriage, and assisting her to alight, led her to the altar, where the bridegroom and bridesmaids stood awaiting her. As soon as the parties were properly placed, the service commenced, and the noble harmonies which had filled the church died away. The ceremony was simple, differing in nothing from the usual form used in all Roman Catholic countries, except that, instead of a plain gold circlet being placed on the bride's finger, as a symbol of eternity, and of the intention of both parties to keep forever the solemn covenant into which they have entered before God, and of which it is the pledge, there was an exchange of rings. The priest paused in the service when he came to the words, "With this ring," etc., and then one of the bridesmaids came timidly and gracefully forward, and placed two rings on the open book which he held in his hand. He took them up, one after another, in his right hand, offering up solemn prayers, and pronouncing a blessing over them. He then gave the small one, which had engraved on it the bridegroom's name, Mauritius Mochnacki, and the date of the year, to the bridegroom; and the large one, having the name Jahasie Zalvzianski, to the bride. For one moment, while he pronounced a few words in a solemn tone, they retained them, and then Jahasie, lifting her eyes to the bridegroom's, as if to gather strength and firmness for the last solemn act, they exchanged them—the small one, having his name, shone on her finger—while the larger ring encircled his.

Immediately on entering the château the bride's veil and wreath were removed by a married lady and replaced by a cap ornamented with orange blossoms, entirely concealing her beautiful tresses. Meantime, the bridesmaids had been flitting around her, laughing, whispering, blushing. Presently she took the wreath which one of them had disengaged from her veil, and flinging it amongst them, it fell on the shoulders of a beautiful girl, who was at once pronounced the "bride of the next wedding." Just then several beautiful children of about ten years, having on their arms small silver-filagree baskets

filled with tiny bouquets of choice exotics, entered the saloon, and, going round through the guests, presented one to each, with a gold pin to fasten it, having a head in the form of a hexagon, each of the sides of which was delicately engraved.

On one side were the initials of the bride; on the second, those of the bridegroom; on the third, the day of the week; the fourth, the day of the month; fifth, the date of the year; sixth, the name of the district in which the ceremony had been performed, of which they are ever after to be preserved as mementoes.

From the British Quarterly.

F A C T S A B O U T R A I L W A Y S . *

A SHORT time since one of our judges intimated that a certain witness, who had been detected in the act of studying *Bradshaw* for twenty minutes at a time, was disqualified for giving evidence, and a fit subject for a commission *de lunatico inquirendo*. We are so unfortunate as to differ from the learned gentleman. We are even ready to agree with a facetious friend who asserts that, in the category of accomplishments set forth in the prospectuses of our schools, a place might be advantageously assigned to "the use of the globes and *Bradshaw*." At any rate, if not strictly an elegant art, and if not quite so exacting a mental discipline as algebra, it would be a great acquisition of useful knowledge to render less inscrutable the quarter of a million of dates, blanks, and hieroglyphics that stud the pages of that volume, and thus to enable Paterfamilias more readily to ascertain the quickest and cheapest routes between,

we will say, Norwich and Shrewsbury, Penzance and Dundee, or Yapton and Bell Busk.

It seems but the other day since our colossal railway system was in its infancy. In strictness, it may be said to have had a long childhood, and then almost over-leaping youth, to have risen rapidly to maturity. The Liverpool and Manchester line was not opened till 1830; but as early as 1813 Sir Richard Phillips had watched a horse-railway near Croydon, the trace of which may still be detected by the Brighton Railway traveler on the hillside to the south of the town.

"I found delight," said Sir Richard, "in witnessing, at Wandsworth, the economy of horse-labor on the iron railway. Yet a heavy sigh escaped me, as I thought of the inconceivable millions of money which had been spent about Malta; four or five of which might have been the means of extending double lines of iron railway from London to Edinburgh, Glasgow, Holyhead, Milford, Falmouth, Yarmouth, Dover, and Portsmouth. A reward of a single thousand would have supplied coaches and other vehicles, of various degrees of speed, with the best tackle for readily turning out; and we might ere this have witnessed our mail-coaches running at the rate of ten miles an hour, drawn by a single horse, or impelled fifteen miles an hour by Blenkinsop's steam-engine. Such

* *Returns for the Year ending thirty-first December, 1859.* Presented to both Houses of Parliament by command of her Majesty. 1861.

Half-yearly Reports of London and North-Western, Great Western, Great Northern, and Midland Railways. Submitted to Proprietors. 1861.

Bradshaw's General Railway and Steam Navigation Guide. December, 1861.

would have been a legitimate motive for overstepping the income of a nation; and the completion of so great and useful a work would have afforded rational ground for public triumph in general jubilee."

In 1814 Stephenson's "Puffing Billy," as it was called, began to run on the Killingworth Railway; the humble precursor of a mighty race who, with ribs of iron, and bowels of brass and fire, and breath of steam, were destined to revolutionize the commercial and social relations of many a land. But when the skill of engineers had at length overcome the scientific difficulties in the establishment of railways, a new host of enemies had to be encountered. So intense was the prejudice against their introduction, that town and country joined against the invasion. Landlords appealed to their tenants, and servants and laborers armed themselves with pitchforks and guns to repel the invading surveyors. Mr. George Stephenson was threatened with the perils of a horse-pond. Prophets predicted that the bubble of railway-traveling would soon burst. Adverse petitions were prepared for presentation to Parliament; public subscriptions were opened to give effect to the opposition. Newspaper editors and pamphleteers ridiculed the delusiveness of the project. Householders were assured that their homes would be hourly in danger of being burned to the ground. The Duke of Cleveland opposed the Stockton and Darlington line because it would pass near one of his fox covers. Farmers declared that neither would hens lay, nor cows graze, and that game would fall dead to the ground if they attempted to fly over the poisoned breath exhaled by the engines. Poets indignantly demanded—

"Is there no nook of English ground secure
From rash assault?"

Politicians declared that the railway system was "a monopoly the most secure, the most lasting, the most injurious that can be conceived to the public good;" and that directors were "induced by no motive to action but their own selfishness, swayed by every gust of prejudice and passion, and too often as profoundly ignorant of even their own real interest, as they are exclusively devoted to its advancement." Medical men asserted that the gloom and damp of tunnels, and the deafening peal, the clanking chains, and the

dismal glare of the locomotives would be disastrous alike to body and mind. An eminent parliamentary lawyer affirmed that it would be an impossibility to start a locomotive in a gale of wind, "either by poking the fire, or keeping up the pressure of steam till the boiler is ready to burst." A well-known engineer deprecated "the ridiculous expectations, or rather professions, of the enthusiastic speculator, that we shall see engines traveling at the rate of twelve, sixteen, eighteen, or twenty miles an hour. Nothing could do more harm toward their general adoption and improvement than the promulgation of such nonsense." And *The Quarterly Review* exclaimed: "What can be more palpably absurd and ridiculous than the prospect held out of locomotives traveling twice as fast as stage-coaches! We should as soon expect the people of Woolwich to suffer themselves to be fired off upon one of Congreve's ricochet rockets as trust ourselves to the mercy of such a machine going at such a rate."

A few short years, and all was changed. Opposition was silenced, perseverance was rewarded, and the highest hopes of the most sanguine friends of railways were more than realized; and though a network of lines has now spread over the land, new ones are constantly being projected; and the influences they exercise, the capital they absorb, the authority they exert, and the army they employ, are ever increasing. Six years ago, £286,000,000 had been devoted to railway construction; and each succeeding year has added some £10,000,000 to that amount. No less than £200,000,000 have been expended by some twelve companies; their lines radiate in all directions over the land, and their managers exercise the powers of a gigantic monopoly over trade, commerce, and social life. So vast an agency may well deserve the attention of all thoughtful men; and the recent publication of the half-yearly reports of the different railway companies, and the more recent issue of the report of the Board of Trade, furnish us with some interesting data to which we may now advert.

In illustration of the colossal nature of these undertakings, we may refer to the London and North-Western Railway. At one time it consisted of only the London and Birmingham, Grand Junction,

and Manchester and Liverpool lines; but now, with its tributaries, it extends from London to Carlisle, and from Peterborough and Leeds in the east, to Holyhead in the west. Its Board rules over more than 1000 miles of railway, and marshals an army of nearly 20,000 servants. On its construction more than £36,000,000 have been expended. Some of its items of revenue for the half-year ending June thirtieth, 1861, were as follows:

Passengers,	£825,405
Parcels,	71,670
Horses, carriages, and dogs,	24,286
Mails,	66,708
Merchandise and minerals,	1,196,896
Live stock,	57,645

besides dividends received from various lines with which the North-Western has working and other agreements. With other items, and some deductions, there is a total of gross receipts for the half-year of £2,179,494, or nearly £84,000 a week, or £12,000 a day, or £500 every hour, both day and night. The law expenses of this company amount to something like £1000 a week. Its return of working stock is as follows:

Locomotive engines, (passenger and goods,) 926	
Tenders,	917
Coaching:	
First-class, mails, and composite,	779
Second-class,	655
Third-class,	476
Traveling Post-Offices and Post-Office tenders,	48
Horse-boxes,	338
Carriage-trucks,	272
Guards' break, and parcel-vans,	385
Parcel-carts, etc.,	84
Merchandise—	
Wagons,	14,803
Cattle-wagons,	1417
Sheep-vans,	295
Coke-wagons,	1491
Carts and carries,	166
Sheets,	11,814
Horses,	416

The new state carriage cost £3000; and in order to be prepared for the increased traffic of the International Exhibition next year, the company has ordered £100,000 worth of new engines and carriages.

Of course it could not be reasonably expected that, with the extension of the line over less populous and wealthy districts, the original value of shares and dividends could be maintained. The traf-

fic on a cross-country road can not be equal to that of a turnpike, and the shares of the London and North-Western have fallen as the area of the railway increased, from £240 per £100 share, to 92 or 93, and the dividend has receded from 10 per cent to 3½. The present depression is, however, partially the result of special causes.

Turning from the London and North-Western line to the railways of the United Kingdom generally, we find that down to the close of 1860 there had been raised for railway construction no less than £348,130,127. Of this amount

£190,791,067 was in ordinary shares,
67,873,840 in preference shares,
7,576,874 in debenture stock,
81,888,546 in loans.

It is, however, easier to write these figures than to realize their vast meaning. The total is nearly half the amount of the National Debt. It is nearly five times the amount of the annual rent-roll of all the real property in Great Britain.

Other statistics of railway construction are on the same colossal scale. From the Parliamentary Returns recently issued, it appears that the length of double line open in Great Britain at the close of 1860 was 6690 miles; of single line, 3743; total, 10,433. This gives altogether some 17,000 miles of railway; and to this must be added one third more for sidings, bringing up the total to more than 22,000 miles of line actually in operation. All this has been the work of thirty years, and makes an average of 733 miles a year. But before these rails could be laid an enormous amount of work must be completed. Six years ago Mr. Robert Stephenson stated, that there were then nearly 70 miles of railway tunnels, 25,000 bridges, besides numerous viaducts, one of which, at London, extended for nearly eleven miles. The earthworks alone average 70,000 cubic yards a mile, which Mr. Stephenson estimated would amount to 550,000,000 cubic yards; and which, reared in the form of a pyramid, would dwarf St. Paul's cathedral into the merest pigmy, since it would be half a mile in diameter, and a mile and a half in height—a mountain of earth which would scarcely find room for its base in Saint James's Park, between the Horse Guards and Buckingham Palace. And since this computation was made, the amount of railway constructed has been increased more than a third.

We have seen that there are some 22,000 miles of single line in existence, or 44,000 miles of single rail. These rails would require no less than 2,765,500 tons of iron; would rest on 60,000,000 iron chairs, weighing some 900,000 tons; and would consume more than 3,660,000 tons of iron for the permanent way. Nor is this all. There is a constant waste of iron, by wear and tear, oxidation, and loss in remanufacture, which must be supplied. It has been ascertained that in passing over sixty miles an engine abrades from the rails 2·2 pounds, each empty carriage or wagon four ounces and a half, and each ton of load an ounce and a half; that ordinary rails will be worn out by the transit of some 360,000 trains; and that they would be serviceable, for instance, on the London and North-Western line for twenty years. The total wear from all causes may be estimated at about half a pound a yard annually; it requires about 24,000 tons to be every year replaced, and 240,000 every year to be rolled again. Other parts of the "permanent" way are, of course, equally perishable. The rails are supported by some 30,000,000 timber sleepers, which must be renewed at the rate of more than 2,400,000 a year; to provide which 360,000 trees must be felled, each yielding six sleepers, and occupying 6000 acres of land on which to grow.

But when the line is completed, the rolling stock has to be supplied; and the 10,433 miles of railway opened at the close of 1860, had no fewer than 5801 locomotives, or more than one for every two miles of line. We need scarcely remark that these are expensive structures; the first engine, costing £550, of five or six tons' weight, and running on four wheels, has been gradually superseded by locomotives of splendid power, some of which cost £3000 each, can draw thirty passenger-carriages, weighing five tons and a half each, at thirty miles an hour, or five hundred tons of goods at twenty miles an hour. Thus, the larger engines on the Great Western, of which the "Lord of the Isles" may be regarded as the type, can take a passenger train of a hundred and twenty tons at an average speed of sixty miles an hour; its evaporation is equal to 1000 horse-power, and its weight is thirty-five tons. The "Liverpool," belonging to the North-Western, gives an evaporation, when at full work, equal to 1140 horse-power.

Before starting, such an engine is supplied with a ton of coals and from 1100 to 1500 gallons of water for the journey. Every engine consists of no fewer than 5416 parts, and must "be put together as carefully as a watch," since the failure of a screw, or the bending of a rod, may bring destruction, not only upon the beautiful and costly mechanism, but on the property and lives of the passengers.

The momentum of a train at a high velocity is immense. To accomplish a speed of seventy miles an hour, a space has to be traversed of about 105 feet per second; that is to say, thirty-five yards must be passed between the tickings of the clock. If two trains crossed one another, each at this rate, and one of them be seventy yards long, it would flash by the other in a single second. Now, as the flight of a cannon-ball, with a range of 6700 feet, occupies a quarter of a minute, which is at the rate of five miles a minute, or 300 miles an hour, it follows that a railway train moving at fifty miles an hour has one sixth the velocity of a cannon-ball. But the ball weighs, perhaps, only thirty-two pounds, while the engine and train weigh probably 100 tons; so that the momentum of the train would equal that of an iron ball, weighing twenty tons, fired from a piece of artillery! If an engine could *walk* through the fourteen-inch wall of the Camden engine-house, without having a dozen yards on which to get up its speed; if in an ordinary accident happening to a luggage-train near Loughborough, the wagons mounted one upon another, till the uppermost was forty feet above the rails; what is the momentum of an express train, as it rushes at full speed, through a roadside station, it is almost impossible to realize; and what would be its destructive power, if it were to dash unrestrained upon some interposing body, it is fearful to imagine.

The ordinary cost of a narrow-gauge engine, with a cylinder of sixteen inches diameter, is rather more than £2000; and of an eighteen-inch, £2500. If we take the average to be £2200 each, then the outlay on 5801 engines is more than £12,700,000; while if they were formed into a train, it would reach from London to Brighton, a distance of fifty-one miles. Every minute of time throughout the year four or five tons of fuel are flashing some twenty or five-and-twenty tons of

water into steam, and are thus supplying the motive energy of these legions of iron steeds. Mr. Robert Stephenson remarks that the water thus turned into steam would furnish an adequate supply each day to the entire population of Liverpool, and the fuel employed is almost equal to the amount of coal exported four years ago from Great Britain to foreign countries, and more than half the whole consumption of the metropolis. Some economy has, however, lately been introduced by the general burning of coal instead of coke—the locomotives being, by courtesy, supposed to be furnished with smoke-consuming furnaces.

Besides engines, there are also 15,076 passenger-carriages, and 180,574 wagons for goods traffic. A first-class carriage costs some £380; a second-class, £260; other passenger-carriages, about £100; horse-boxes, about £150. If we average passenger and goods' vehicles at £100 each, their cost amounts to nearly £20,000,000. If a train were made of the passenger-carriages on our various railroads, it would extend from London to Huntingdon or Oxford; if of goods-wagons, it would reach from London beyond Perth; while a train made of engines, carriages, and goods-trucks, would occupy the whole down-line from Brighton to Aberdeen, more than 600 miles. Upward of 10,000 trains run every day; which is an average of more than seven starting every minute of the four-and-twenty hours. Altogether nearly 4,000,000 trains ran in the course of last year. Compared with the year previous, the passengers were more numerous by nearly 14,000,000, the minerals by 8,600,000 tons, the distance traveled by trains by nearly 9,000,000 miles, and 431 miles of additional railway were opened. The number of passengers was as follows:

20,625,851 first-class,
49,041,814 second-class,
93,768,013 third class and parliamentary;
<hr/> 163,435,678 total.

Besides these, nearly 50,000 holders of season and periodical tickets made very numerous journeys; a large proportion, doubtless, traveling twice almost every day in the week. These totals will show that an average of some six journeys in the year have been made by every individual in the kingdom. The trains, passengers,

and goods traveled more than 100,000,000 miles, which is further than 4000 times round the world; and to accomplish which more than three miles of railway must be covered by trains during every second of time throughout the year. More than 260,000 excursions were made by horses, and 350,000 by dogs; and for the latter some £20,000 were received. Twelve millions of cattle, sheep, and pigs made railway journeys, and 90,000,000 tons of merchandise and minerals were conveyed; of this amount, the minerals were double the quantity of general merchandise, and they were carried at about a quarter of the cost. The total receipts were:

£3,170,985 for first-class passengers,
3,944,713 for second-class "
4,162,487 for third-class and parliamentary,
272,807 for holders of season and periodical tickets,
<hr/> £11,550,942
1,008,892 for excess luggage, parcels, carriages, horses, dogs, etc.,
525,922 for mails,
<hr/>

£13,085,756 for passengers.

From this statement it will be seen that though third-class passengers ride in carriages ingeniously contrived to be uncomfortable, and in trains studiously arranged to start at inconvenient hours, and to travel slowly, they are the most important of the patrons of railways, whether we regard their numbers or their payment. Thus Parliament has compelled the companies to adopt a measure by which their own interests are advanced, and some accommodation—if such a term may be employed—is provided for the poorer classes of the community.

The total traffic receipts from all sources for last year were £28,000,000 sterling, being an increase of £2,000,000 above the preceding year.

From this enormous revenue serious items of expenditure have to be deducted before we arrive at the balance available as profit for shareholders. The amount of working expenses varies on different lines. The Midland Company expends only 41 per cent of their receipts; the Lancashire and Yorkshire, 42 per cent; the West-Midland, 46 per cent; and the Great Northern, 55 to 56 per cent. The average working expenditure on all the lines amounted last year to £13,187,368, or 47 per cent of the receipts, omitting only three small lines of little importance.

Of this expenditure—

£2,487,862 was for permanent way,
 3,801,282 for locomotive power,
 1,118,784 for renewals of carriages and
 wagons,
 8,699,708 for traffic charges,
 517,365 for rates and taxes,
 363,174 for government duty,
 181,170 for compensation for accidents
 and losses,
 1,068,521 miscellaneous.

£18,187,366

But while the railway companies have had intrusted to them enormous powers, and while they render inestimable services, it must be remembered that they are invested with a correlative responsibility, and must be regulated by corresponding checks and limitations. When a traveler, who is hurrying across the country, finds he has to wait five or six hours at a junction, because the train by which he expected to proceed has been designedly dispatched just before he arrived, it is small comfort to him to be informed by sympathizing subordinates, that the directors of the two companies have recently had some "unpleasantness," and that this is their method of expressing their displacency. When a hamper of provisions, or a barrel of oysters, comes from a friend fifty or a hundred miles off, after being a week on the journey, and is found to be in a state of moldiness or putridity, it is poor consolation to the indignant recipient to be assured by some energetic traffic manager, that he can not possibly guarantee any more expeditious delivery. When a signal distance goes out, and an express dashes into a cattle-train, which is shunting into a siding, and a number of fellow-creatures are hurried, without a moment's warning, into eternity, it seems rather a mockery than a satisfaction, to the bereaved in particular, and to travelers in general, to be told, that oil-lamps *will* sometimes go out in frosty nights. When one train is dispatched only five minutes ahead of another, and, being a little delayed by the slipperiness of the rails, is overtaken and run into by the second train within half a mile of the terminus, it is not enough to be informed that there were only a few "contused knees," and "cut faces," and other "injuries of a superficial character," as the result. When a signalman is detained at his work some sixteen hours a day for seven days a week, and the mo-

notony of duty is diversified only by periodically keeping him twenty-four hours consecutively at his post, and when, on an emergency, his presence of mind forsakes him, and some five-and-twenty passengers are killed, and three times as many are wounded, it is small comfort for the coroner's jury to find a verdict, however terrible, against the company. When the iron roads that connect Liverpool and Manchester are so over-loaded that the station-masters actually refuse to receive another package, however urgent the necessity for its dispatch, people with only plain common-sense to guide them will be apt to conclude that some amendment ought to be made.

Nor are these instances merely hypothetical; they are all actual. To say nothing of lesser annoyances constantly arising in the transit of passengers and goods by the mal-adjustment of branch and cross-country trains, the public are ever and anon alarmed with tidings of accidents of a distressing and disastrous nature. Of course we admit a distinction between those that arise from carelessness and those which are occasioned by unforeseen contingencies. But we learn that an effort is about to be made by the railway companies to avert from themselves the measure of responsibility by which they have hitherto been checked; that a "case" is to be presented to Parliament, and that it is to be proposed that the example of the United States should be followed, in which the value of any human life is estimated at 1250 dollars; and that, however guilty may be the folly of the company, juries are to be limited in the amount of the damages they award by some low pecuniary estimate of the life that has been needlessly sacrificed. We trust that Parliament will not forget that railways have their duties as well as their rights, and that the only check that the public exercises over railway administration is through the verdicts of juries.

Nor is there any immediate probability of the cessation of railway extension. A glance at *Bradshaw's* railway map will show the new lines that are being constructed. Fresh powers have since been obtained from Parliament; and while we write, the advertising columns of the papers are occupied with notices of 175 new railways bills which will be introduced during the next session. One of the most

novel of these is for a line exclusively intended to connect the northern coal-fields with London, running along an almost dead level from Darlington, and joining the Eastern Counties near March. But perhaps no railway extensions are more needed than those of the metropolis, and which are being pressed forward with unexampled rapidity in anticipation of the extraordinary traffic of the present year. To relieve the undue and increasing pressure of its streets, to draw the existing suburbs closer to the city, and to change the neighboring counties into the environs of London, will be to effect a great and useful change. The most remarkable of these lines will doubtless be that which is known as the Metropolitan Subterranean line. This scheme presented unusual difficulties of construction. It was not an easy task to delve beneath the thoroughfares and houses, and among a labyrinth of gas-mains, water-pipes, and sewers, to erect a spacious, well-lighted and ventilated subterranean way. Many conflicting vested interests had also to be adjusted; vestries, boards, and companies to be appeased; the Board of Works to be propitiated. But by the first of May next, it is expected that it will be completed, extending from the Great Western terminus at Paddington, having excellent working junctions with the North-Western at Euston, and the Great Northern at King's Cross, to the Victoria station—as it is to be called—near Holborn. Here the line is to have two branches, one intersecting Skinner street, and meeting the Chatham and Dover Railway, which is to cross the Thames at Blackfriars. The other branch is to run north of Smithfield into Finsbury Circus, whence doubtless various extensions will be made. Nearly half the line will be above ground; and the tunneling works are admirably constructed to bear the superincumbent pressure. The lines are laid for both broad and narrow-gauge, and engines have been built to consume their own steam and smoke, and leave the air of the tunnels uncontaminated and transparent. We are assured that a single trip will disarm the most fastidious of any prejudice they may cherish against subterranean railways in London; while the facilities they will afford for traveling in and through the metropolis will be of inestimable value. Passengers from the north will be able to book “through” to

Dover or Southampton; suburban residents may be set down at their office doors; time, cost, and irritation will be avoided. Other lines will soon be completed, which will meander among the lonely hills and dales of the Principality, linking together its mineral districts with the port of Liverpool and the manufactories of Lancashire and Yorkshire, and supplying both with the agricultural produce of the intermediate regions.

The creation of the railway system has produced many a silent revolution in the trade and social life of the community. Towns have risen into existence or have stagnated and dwindled, as they heard or failed to hear the weird voice of the locomotive. The London and Birmingham line would have passed through Northampton; but so powerful an opposition was raised to the daring intrusion on the sylvan solitudes of that boot and shoe-making town, that the projectors were compelled to distort the line so as to pass by way of Blisworth, at an additional and unnecessary cost of £500,000, and to penetrate the Kilsby ridge by a tunnel 2400 yards in length, 160 feet below the surface, the mere brick-work of which required 36,000,000 bricks—enough to make a foot-path a yard wide from London to Aberdeen. The people at Northampton repented their decision when too late. Instead of being the chief intermediate station between London and Birmingham, they have had to solace themselves with a branch and some subordinate extensions; and the great engineering establishment of the southern division of the North-Western has been built at Wolverton, instead of Northampton. Other towns showed as little foresight. Eton and Oxford would not allow the Great Western bill to pass without the insertion of special clauses to prohibit the formation of any station at Slough, or any branch to Oxford; and when the directors subsequently ventured merely to stop their trains to take up and set down passengers, proceedings were commenced against them in Chancery by the authorities at those seats of learning, and they were interdicted from even making a pause. Both these towns have since gladly availed themselves of branch lines, though of course they have to endure the inconveniences of their subordination. The same spirit was manifested elsewhere. When it was contemplated to

carry a line across Kent and through the county-town of Maidstone, a public meeting unanimously resented the proposition, and the railway had to be made at a distance. Subsequently the townspeople grew clamorous for a branch; and when that was completed, they complained that the route to the metropolis was circuitous. On the other hand, some towns have been the creation of railways. Crewe, with a population of some 10,000 souls, and Wolverton, have been built by the North-Western; and Swindon, with its 2000 or 3000 artisans, has been originated by the Great Western. More than 100,000 men are computed to be in the employ of the various railway companies, representing a population of 500,000 souls.

Many other changes have also been occasioned by the extension of railways and the competition between companies. Some towns, for instance, being left without railway accommodation, the tide of trade flowed into other channels; while the opening of new lines has restored them to more than their former importance. Thus, Salisbury was for several years one of the most inaccessible of towns, for it could be reached only by a branch from the South-Western, at Bishopstoke, and was connected with the south, north, and west only by second-rate coaches; but the opening of the direct London and Exeter line, from Basingstoke, through Salisbury and Sherborne, and of branches from the Great Western at Bath and Chippenham, have conferred upon it special advantages both for passenger traffic and trade, and the town has felt a fresh impulse of prosperity. As an illustration of the effects of competition, it may be mentioned that the third-class passenger may now travel for a penny a mile from London to Exeter by the eleven o'clock morning train, which is one of the fastest trains on the line. On the other hand, the Midland Railway, having little competition, often charges almost as much for second-class fare as North-Western and other railways require for first-class, and nearly all its trains stop at nearly all the stations. Thus, the quickest train between towns so important as Derby and Lincoln, a distance of forty-five miles, occupies two hours and twenty minutes. Another illustration of the changes in the accessibility of towns is supplied by Market Harborough. For some years it lay out of the route of any railway, and for several more it could be

reached only by the Rugby and Stamford branch; but lately another branch has been opened to Northampton, and the Midland Company has also completed a direct line from Leicester through Harborough to Hitchin. By these means the 633 miles of the Midland railway are brought within thirty-two miles of the metropolis, and that company has now to pay a toll to the Great Northern only from Hitchin to London, instead of, as formerly, from Rugby to London.

The changes, however beneficent and mighty which railways have produced, have for the most part been gradual and silent. They have not come with observation. That a merchant may take tea in London, and without any special effort, inconvenience, or cost, sup in Liverpool; and that another may reside at Brighton, and occupy little more time to reach his office in the city than his clerk takes to walk from Camberwell; these are doubtless great achievements of science and art. But incomparably greater than any merely isolated triumphs over space or time is the swift and constant intercourse of mind with mind and nation with nation, and the facile interchange of the productions of the loom and the soil, the water and the mine, the province and the clime, by which man is comforted and enriched. The journeys performed throughout the kingdom have increased at the rate of nearly 10,000,000 a year; the number has more than doubled in ten years; and whereas in 1851 the various railways could bring to and take away from the metropolis only 40,000 persons a day, they can now bring 140,000!

Nor is it one of the least remarkable results of these new means of locomotion, that, instead of destroying, they have enhanced the value of some that were formerly in use. Even the inestimable advantages of our postal system are mainly attributable to the facilities afforded by railways. It is easy to put on six or eight additional vans to the Friday night mail of the North-Western; but if we were still dependent on coaches, Mr. R. Stephenson assures us, that no fewer than fourteen or fifteen would have been needed six years ago to carry on the postal service between London and Birmingham alone. The country may now be traversed in every direction in a few hours, so that its extremities are as accessible to the metropolis as its suburbs were two hun-

dred years ago. We enjoy the compactness of a city with the space and resources of an empire. Nineveh was a city of three days' journey—Great Britain can be nearly spanned in one. For questions of distance the country is almost as available as if it were only one of the Channel Islands. One circumvallation includes all our cities. "A hundred opposite ports are blended into one Piræus, and to every point of the compass diverge the oft-traversed long walls that unite them with our engirded Acropolis."

Thus the benefits of railways are extending far and wide, and we trust will extend; drawing together the bands of empire and the family of man. The schemes that were suggested a few years since in derision are now being executed. A submarine railway between England and France is seriously contemplated. Europe is uniting its great cities and ports by links of iron. India is enjoying facilities by which herself and the world will be enriched. We already hear of a

"deviation" to Ephesus; we may before long hear of a station at Antioch, or of a Jerusalem junction. The physician will soon be ordering his patient a change of air in the ancient garden of Eden, or a fishing-trip to the Euphrates. An acquaintance may give point to his after-dinner conversation by reciting an adventure he had the other day as he was on an excursion about the thirtieth degree of longitude. The valetudinarian may live, like the swallow, in perpetual summer. We all increasingly sympathize with the saying of Burton concerning the traveler: "He took great content, exceeding delight, in that his voyage. And who doth not, who shall attempt the like? For peregrination charms our senses with such unspeakable and sweet variety, that some count him unhappy who never traveled, a kind of prisoner; and pity his case, that from his cradle to his old age he beholds the same—still, still, still the same, the same!"

From the British Quarterly.

DISCOVERIES—NEW OR OLD.†

THE telegraph affords an excellent illustration of our preceding observation, that when the time and occasion have come, a discovery arises frequently from several quarters at the same time, each one being independent of the others, and by no means necessarily, or in many cases even probably, implying plagiarism. It appears that MM. Gauss and Weber actually communicated signals having the significance of letters, at Göttingen, as early as 1833; but the year 1837 "is the date of the realized electric telegraph. We find three distinct claimants, of whose independent merits there is no reason whatever to doubt, though how much of

the merit of all must be considered due to MM. Gauss and Weber, who first made the experiment, though they did not offer it for general adoption in a convenient form, is a matter we need not here decide. The three independent inventors (I name them alphabetically) are Mr. Morse, of the United States, M. Steinheil, of Munich, and Mr. Wheatstone, of London."* Professor Forbes appears to give the preference to Mr. Wheatstone's invention, and thinks that no other inventor has shown such perseverance and skill in overcoming difficulties, although Mr. Morse's is naturally preferred in America.

Whilst men waited for the telegraph,

* *Le Vieux Neuf: Histoire ancienne des Inventions et Découvertes modernes.* Par EDOUARD FOURNIER.
† Concluded from page 388, last volume.

* Professor Forbes's *Inaugural Dissertation* p. 986.

there were many devices for direct communication proposed, more or less amusing. *Sympathetic snails*, of which we have heard somewhat of late years, appear to have been as old as Paracelsus; perhaps not altogether satisfactory in their results, or certain in their indications; for they soon were neglected for more complicated proceedings. Two friends who wished for direct correspondence when parted, were advised to cut from the arm of each a piece of skin of equal size; these were to be exchanged, and engrafted each on to the other's arm. When the wounds were healed, the apparatus to save postage was complete. If one wished to speak to the other, he had but to trace on the borrowed skin, with the point of a needle, the letters of the sentence in order; and these would at once be recognized by a corresponding sensation on his own skin now on the arm of his friend. On which Mr. Fournier remarks that the idea is ingenious, and the proceeding simple; there is but one difficulty—which is, to believe in it.

Then succeeded the idea that two magnets might be so similarly prepared that, when apart, whatever direction one was placed in, the other would spontaneously assume; and so the basis of direct communication might be formed. Strada, who relates this, regrets only that he fears no magnet can be found possessed of such virtue; and exclaims:

"Oh! utinam hæc scribendi prodest usu,
Cautior et citior proferent epistolæ."

Some writers of eminence, amongst whom is enumerated even Kepler, appear to have placed some faith in this plan. But although they knew in that age something of electricity and something of magnetism, the time had not yet come for their combination.

The electric nature of lightning, and the efficacy of lightning-conductors, appear also to have been known for long ages:

"Long before the kites of Romas and of Franklin, the priests of Etruria knew how to see the thunderbolt in the clouds, and to bring it to the ground. Numa was one of the initiated in this marvelous science; and the prodigies that he performed thereby caused the people to believe in his commerce with the gods. Tullus Hostilius wished to repeat his miracles; but being inexperienced, he was killed, in consequence of not knowing how to manage and direct the lightning

that he had brought down . . . the electric current wandered from the iron point and the badly-arranged conductors, and Tullus was slain."*

Whether the passage in Livy† will strictly bear this interpretation may fairly be questioned; but there can be no doubt that the knowledge of this matter is of very ancient date. The passage just cited continues thus:

"Amongst the Celtæ, ancestors of the Etruscans, these practices, employed to bring down the lightning, were *always* known. If we may believe the old alchemists, not only did they know the method of thus preserving their dwellings, but by forcing these divine sparks to fall into their lakes and fountains, they formed blocks of gold!"

Holfengen says that the pieces of gold found in their lakes were nothing more than concrete lightning; the consideration of which statement may tend, perhaps, to throw some discredit upon the rest of their knowledge of the subject. Another quotation is more definite and curious:

"During all the Middle Ages, the tradition of this knowledge, common to the Jews and the Etruscans, and perpetuated amongst the Romans, was preserved in a corner of Italy. From time immemorial, on the summit of the highest bastion of the castle of Durino, on the border of the Adriatic, a long rod of iron was fixed. It served, during the stormy days of summer, to announce the approach of a tempest. A soldier was always near when such an occurrence seemed to threaten. From time to time he pointed the iron head of his long javelin to this rod. Whenever a spark passed between these metals, he sounded the gong, which was near, to advertise the fishermen of the approach of the storm; and at this well-known signal they all hastened to the land."

To turn to another department of science—there are two supposed discoveries of the present century which belong especially to medicine, but have become so popularized as to be completely public property: we refer to vaccination and the administration of anesthetics, especially chloroform. An inquiry into their history leads us to some curious revelations. We have said they belong to this century, for although it was four years before the expiration of the last that Jenner commenced his investigations, we may consider vaccination as belonging essen-

* *Le Vieux-Neuf*, vol. i. p. 182. † Lib. i. cap. 81.

tially to the nineteenth. What says M. Fournier?

The traditions of the East often contain more wisdom than we have in our books. Of this, vaccination is a proof: how many ages of contagion and mortality have we had to endure, before finding the counter-poison to this terrible virus—how many futile and useless attempts? The wished-for antidote, however, was in the hands of the Hindoos and Persians from time immemorial. Dhanwantari, the Hindoo Esculapius, spoke of it in his sacred book, the *Sateya Grantham*, and from that time it was not only a social, but a religious obligation to resort to the divine remedy. M. Fournier quotes the following passage as from the *Bibliothèque Britannique*, tom. xxx. p. 134:

"The Hindoos dip a thread in the pustule of a cow, and keep this thread, which enables them to give the eruption easily to any child presented to them; passing it into a needle, they insert it between the skin and the flesh of the upper part of the arm of the infant. This is done to both arms, and never fails to produce a mild eruption; and no one thus treated ever dies of the disease."

But it would be very hard that France should have no share in a discovery of such importance, and utterly hard would it be upon our author's theory, if an Englishman had not subsequently stolen the invention, this being the natural order of things. M. Fournier confesses that the English, "who already possessed Hindostan, might have learnt the secret there, and, according to their custom, passed it off as their own in Europe;"* and did he "not know the whole truth, he would be ready to swear that vaccination came to us this way, and no other." But not so; it was a Frenchman from whom the English borrowed or stole the idea, and a Frenchman, too, who had neither been in India, nor read the *Sateya Grantham*. His name was Rabaut, and he was a Protestant minister, near Lanel, in 1784, where the small-pox was raging violently and fatally. He observed the analogy between the mild *picote* of cows and the small-pox, and considered within himself whether inoculation with the matter of the former would not be as efficacious as that with the real pustule, and also less dangerous. Following still the recital of our author, it appears that M. Rabaut

formed an acquaintance with two English gentlemen who went to winter at Montpellier—Mr. Ireland, a Bristol merchant, and Dr. Pugh, of London—and to them he communicated this idea of his. Dr. Pugh was so struck with the notion, that he promised to mention it to his friend Jenner. He did so, and the idea germinated and brought forth vaccination, of which "Jenner assumed all the glory, and the name of the real inventor was left to oblivion."

This differs much from our own histories of Jenner's discovery, and the authority for it all appears to be extremely slight. In fact, the story rests almost entirely upon a letter presumed to have been written in 1811, perhaps five and twenty years after these events, by Mr. Ireland to M. Rabaut, acknowledging the conversations between himself, Dr. Pugh, and M. Rabaut—a letter, too, which does not seem to have been printed or published until 1824, some time after the death of M. Rabaut. We conjecture that such evidence as this would fail to convince M. Fournier, were the suspected plagiarism to be reversed.

Treating of anesthetics, M. Fournier, in a very few lines, settles the much-vexed question of priority of discovery in favor of his countryman, M. Soubeiran, but candidly confesses that the secret and practice of administering drinks and vapors to produce insensibility during operation had been known for perhaps decades of centuries. That universal genius, Papin, in 1681, wrote a treatise upon "operations without pain," which was lost, and has only recently been re-discovered. In the Middle Ages, mandragora was given extensively for anesthetic purposes. "The bark of mandragora, infused in wine, is given to patients whose limbs may have to be amputated, in order that they may not feel the pain."* M. Raspail states this was by no means a discovery of the Middle Ages, but dated from the ancients. He refers us back to Dioscorides, Matthioli, and Pliny.

Dr. Simpson acknowledges that from a very early period "different medicinal agents seem to have been suggested, and employed, too, for the purpose of producing a state of anesthesia during surgical operations. These agents were sometimes used in the form of odors or vapors, or by

* *Le Vieux-Neuf*, vol. i. p. 273.

* See *Le Vieux-Neuf*, vol. i. p. 91, for references.

inhalation, and sometimes they were administered by the stomach."* Of these the principal were the mandragora and the Indian hemp, which latter is by repute known to us under various preparations and names—as bang, hachisch, etc. "M. Jullien lately pointed out to the French Academy an old Chinese work, proving that 1500 years ago a preparation of hemp, or ma-yo, was employed medicinally in China to annul the pain attendant upon cauterization and surgical operations."† From this work M. Fournier gives a quotation, prefaced by the statement that the individual referred to was a physician named Hao-Tho, who lived in the third century of our era, and who always resorted to this expedient when performing any grave operation.

"He gave to the patient a preparation, called *ma-yo*, who after a few instants became as insensible as if drunk or dead. Then Hao-Tho practiced his incisions, or amputations, put in the sutures, and applied the dressings. After a certain number of days, the patient found himself cured, without having suffered the least pain during the operation."‡

But even at this remote period it might still have been said of this practice, Behold! it has been in the old time before us. Homer describes very closely the effect of hemp, under the name of *Nepenthes*, (*without affliction*), upon Ulysses and his companions. The occasion was on the arrival of Telemachus at Sparta, when, to assuage his sorrow,

"Bright Helen mixed a mirth-inspiring bowl;
Tempered with drugs of sovereign use, t' assuage

The boiling bosom of tumultuous rage;
To clear the cloudy front of wrinkled Care,
And dry the tearful sluices of Despair;
Charmed with that virtuous draft, th' exalted mind

All sense of woe delivers to the wind.
Though on the blazing pile his parent lay,
Or a loved brother groaned his life away,
Or darling son, oppressed by ruffian force,
Fell breathless at his feet, a mangled corse;
From morn to eve, impassive and serene,
The man entranced would view the deathful scene."§

The secret of these drugs Helen is said to have learned from the wife of Thone, the King of Egypt, which Thon, or Tho-

nis, or Thoon, is supposed to have been the inventor of physic in Egypt. Concerning their nature there has been much dispute, some inclining altogether to an allegorical interpretation of the word *Nepenthe*; but it is very generally believed now that the drugs in question were chiefly the Indian hemp, or *Cannabis Indica*, the anesthetic and inebriating effects of which have been long known in Egypt and the East. It appears from Herodotus that the effect of the inhalation of the vapor of hemp was well known to, and used by, the Scythians and Massagetans for purposes of excitement and intoxication. But our actual modern method of inducing anesthesia appears to have been used as early as the twelfth century by Hugo of Luoca, who used a kind of sponge dipped in opium, mandragora, etc., "the vapors raised from which, when inhaled, were capable of setting patients into an anesthetic sleep during surgical operations."* The idea appears never to have been lost for any long period. Again and again do we find references to the practice in the older writers, and it even was popularly known and recognized. Middleton, in his tragedy of *Women, beware Women*, published in 1657, pointedly and directly alludes, in the following lines, to the practice of anesthesia in ancient surgery:

"I'll imitate the pities of old surgeons
To this lost limb—who, ere they show their art,
Cast one asleep, then cut the diseased part."

"Indeed the whole past history of anesthetics is interesting as a remarkable illustration of the acknowledged fact that science has sometimes for a long season altogether lost sight of great practical thoughts, from being unprovided with proper means and instruments for carrying out these thoughts into practical execution; and hence it ever and anon occurs that a supposed modern discovery is only the re-discovery of a principle already sufficiently known to other ages, or other remote nations of men."†

The use of gas for the purposes of illumination is another of the almost interminable catalogue of ideas that have been known to the world in a crude state for indefinite periods, and the system

* Art. "Chloroform," *Encyclopædia Britannica*, vol. vi. p. 632.

† *Ibid.* loc. cit.

‡ *Le Vieux-Neuf*, vol. i. p. 95.

§ *Odyssey*, Book IV. Pope's translation.

* Dr. Simpson, *op. cit.* † Dr.

utilization of which has been reserved for the present century. As is frequently the case in matters of invention, we find mention of the Chinese amongst those who were the earliest acquainted with its properties; not as a matter of industry in the present instance, but as a natural production. On the general relations of this people to discovery, M. Fournier remarks:

"As regards science and industry, these paradoxical people are every thing and nothing—every thing as to the germ of the idea; nothing as to its practical elaboration. Their mummy-like civilization has often preserved what has been lost elsewhere—but how? In a state of petrification. Every thing is preserved, not by living experience, but by *routine*, that rust of progress, as Chaptal has so well said: Poor people, who for centuries have not made a single step in advance, of their own accord! And how should they advance, when they commence by suppressing the feet?"*

An argument more epigrammatic than cogent. But in the matter of gas, nature has supplemented their energies. For an unknown period they have had what are called fire-pits; into which they have but to bore and insert a tube—though sometimes to the immense depth of fifteen hundred feet—and from them they obtain an impure inflammable gas, which burns sufficiently well for purposes of lighting, and certain industrial occupations requiring this substitute for fires. With it they evaporate salt-brine, and also light their streets and houses; the lowest of the poor use it for warmth in the open air. From all this, however, the Chinese have derived no further advantages; they have neither sought to purify the gas they have, nor to make it artificially.

Burning springs were also known long ago in Europe, but their existence was not suffered to remain an isolated fact. Men reasoned upon it, investigated its source, and attempted, with ultimate success, to imitate its nature, and improve upon its results. The writers upon Gas-light in the *Encyclopædia Britannica*,† claim for the Rev. John Clayton the discovery of coal-gas. His experiments appear to have been performed certainly before 1691—since they are detected in a letter written to the Hon. Robert Boyle, who died in that year—although not published until 1739. He states that having

introduced a quantity of coal into a retort, and placed it over an open fire, "at first there came over only phlegm, afterward a black oil, and then likewise a spirit arose, which I could no ways condense; but it forced my lute and broke my glasses. Once when it had forced my lute, coming close thereto in order to try to repair it, I observed that the spirit which issued caught fire at the flame of the candle, and continued burning with violence as it issued out in a stream, which I blew out and lighted again several times. I then had a mind to try if I could save any of this spirit, in order to which I took a turbinated receiver, and putting a candle to the pipe of the receiver whilst the spirit rose, I observed that it caught flame, and continued burning at the end of the pipe, though you could not discern what fed the flame." He then relates how he filled many bladders with this gas, which he calls the *spirit*, and how he could not condense it, but used to amuse his friends by pricking holes in the bladders, and lighting the jets of air which came from them.

Here then is the discovery of gas, complete and perfect as to all essentials. Yet it appears to have slumbered for a century, when Mr. Murdoch revived the idea, and systematically investigated the subject; and it was not until an early part of the present century that any progress in a practical direction was made. Let us do M. Fournier the justice to state, that while he acknowledges Mr. Clayton's discovery, he does not *in this instance* charge him with having stolen it. Of course a Frenchman had been on the same track nearly a century before—M. Jardin having obtained an inflammable gas by the destructive distillation of "oil, alcohol, bitumen, and other matters," in 1618—but Mr. Clayton *may have* made his discovery, "for the second time," without knowing any thing about his predecessor. Connected with lightning and plagiarism, we find that the renowned argand lamp was originally stolen by a M. Quinquet from M. Argand of Geneva, and was long called by his name. We mention it because it is again pleasant to find, that if we English do steal all upon which we can lay our hands, there are at least others who do likewise.*

* *Le Vieux-Neuf*, vol. i. p. 114.

† Dr. Anderson and Professor Tomlinson.

* It may be added that if priority of use constitutes invention, neither M. Argand nor M. Quinquet invented the lamp called by the name of the former.

M. Fournier strongly approves of representative government, but equally strongly objects to its being considered a modern idea. He traces it back as far as the Pythagoreans, but we have not space for his certainly learned history. Trial by jury he considers a necessary corollary to this, and allows for once that England had the priority. He shows how, in the fourteenth century, Etienne Marcel would have introduced it into France, but was too hasty—the time was not ripe.

"To conclude by a truth, so true that it is *banale*—every thing requires its own day and hour. Etienne Marcel went too fast; like all impatient reformers, like all improvisers of revolutions, he must fall. The best proof that the greater part of those things which we wished to impose upon France were only five centuries too soon, is found in the fact, that at the present time some are not yet ripe, as, for instance, progressive taxation. Nevertheless, imposts are amongst those things that ripen the quickest. Governments, especially despotic governments, have in this matter an unparalleled aptness of invention and promptitude of execution. Witness the Romans; they have left us little to discover in this department. We have only to study their system to learn, with its thousand modes of pressure, the art *de faire suer le contribuable par tous les pores*."

But the opposition of the people is strong and heartfelt, so that practice is not always able to keep pace with theory:

"The principle of the *budget* was positively recognized during the middle ages, but it is only in our own day that it has become a reality. Colbert conceived in its entirety, with its thousand complications, the financial system that now governs us; but to whom do we owe its practical application?—to Napoleon."*

If in some of our political institutions we have preceded France, it seems that we have again borrowed, or, as M. Fournier has it, *stolen* from them our ideas on *political economy*. Adam Smith (he says) demonstrated the effects of division of labor; so had Aristotle and Xenophon before him; and to modernize and translate ancient ideas is legitimate borrowing, (*emprunt légitime*;) but "is it so to take from the moderns without acknowledgment; to take advantage of a great reputation and a strong voice to drown that of the veritable author; and to cause

these borrowed ideas to pass as his own? Is this loyal and lawful? I trow not; yet it is this that Adam Smith has done."† In short, Adam Smith is supposed to have seen and conversed with M. Turgot, who published a book in 1766, "upon the formation and distribution of riches;" but not content with this conversation, he waited until the book appeared, which he digested at leisure, and then published the ideas as his own in 1775. But as there are certain propositions and conclusions in this work of our countryman, not found in Turgot's book, these are all supposed to be taken from a work by another Frenchman, Bosnier de l'Orme, upon *Political Government—plagiat ou vol tacite*. For all this, there is a most portentous lack of proof, and we may safely trust the reputation of Adam Smith to bear up under the accusation.

The most interesting feature of M. Fournier's book is that which illustrates the constant tendency of the human mind to run in definite tracks, and to work round to given points by cycles of opinion and invention: to-day is but the plagiarism of former times; and "human invention, limited with regard to little things as well as great, seems to reproduce without cessation a movement similar to that of the cylinder of popular organs, or hurdygurdies, which the last revolution brings back always to its first refrain."‡ In nothing is this more remarkable than in dress and fashion; a fact which gave occasion to the celebrated *mot* of the modiste of Marie Antoinette: "There is nothing new but that which is forgotten."‡ How correct the idea is, requires scarcely an illustration; we need only refer to the constant pro-and-con discussions on the crinoline of the present day, and compare them with the letters and essays on hoops in the days of Addison and Steele; both these being nothing more than repetitions or reproductions of the *vertugales* of the sixteenth century.

In connection with dress, it may be also noticed that there are one or two inventions which seem to be lost to us of the present century. In 1743, in the *Chronique du Règne de Louis XV.*, there is mention made of an individual who had presented to the Queen a robe of cloth of gold, woven without seam, by a method

The principle of its construction appears in the lamp described by Cassiodorus, about A.D. 562; and the Romans had certainly used much the same kind of light before him.

* *Le Vieux-Neuf*, vol. i. p. 373.

* *Le Vieux-Neuf*, p. 387. † *Ibid.* vol. ii. p. 195.

‡ Il n'y a de nouveau que ce qui ce est oublié.

invented for the occasion. The "garment without seam" we also know to have been in occasional use above seventeen centuries before this time; but, so far as we know, the secret has not come down to our times. Certain spear and shot-proof garments are said also to have been known of old, which are unknown now. The *piléma* of the Greeks is said to have been made of material so solidly felted together, that the point of the sharpest dart would not penetrate it—a manufacture which moderns have tried often (according to M. Fournier) to imitate, but without much success. In 1780, however, a M. Doffemont appears to have accomplished something of the same kind, consisting of silks so united as to resist pistol or musket-balls. The balls only struck the outer layers, and then fell back. The cuirasses made of this material were said to be only one half the weight of those of iron that were equally effective; the secret is not now known.

We will briefly notice, without any attempt at order, a few other modern inventions borrowed from the ancients. Of iron ships, concerning which we English are said by M. Fournier to pride ourselves so much, they are merely a plagiarism from the seventeenth century, and of course from a Frenchman. In 1644, M. Mersenne had mentioned to Descartes some such project. Curiously enough, no one had heard of it before. The purification of sea-water by distillation is not by any means a modern discovery. Aristotle* hinted at it, not distinctly; and St. Basil said that in his day they rendered sea-water fit to drink by boiling it, and collecting the vapor in sponges.

M. Fournier attributes the invention of what we call Congreve rockets to the Spaniards; the account is to be found in the *Manual of Artillery*, composed by Louis Collado in 1586. Sir William Congreve himself is said, by the same authority, to have learnt the secret of their composition by examining the extinct tubes of the projectiles directed by the Mahrattas against our troops.

"Is it not singular that the Europeans should find in the hands of these people one of the most terrible applications of gunpowder—this force which they (the Europeans) conceive themselves to have invented, and to have taught to the Easterns? It is a new proof that this Indian soil is not so effete as one might think. In-

telligence has not lost all its vigor; it may still create, as it created aforetime; and from the genius of its sages may yet spring ideas like to those which are the germs of so many great discoveries, the glory of our philosophers—phrenology, for example, the first hint of which is found in a book of India; vaccination, which was only too long a secret of the Brahmins; and mutual instruction, (*enseignement mutuel*), which has for so many ages popularized the reading of the sacred books, under the eyes of the Bells and the Lancasters of Hindostan."*

Breech-loading guns, now so much in question, were known in the sixteenth century, and are mentioned by P. Daniel, who does not, however, give the name of the inventor. They were forgotten, and reinvented in 1777, by the Chevalier D'Arcoy; but only to be again either forgotten or neglected. In that prolific sixteenth century also was invented what is now known as the "infernal machine." It was contrived as a method for private vengeance by one Chantpié; it missed fire in some unexplained way, and its inventor was broken on the wheel. About the same time, air-guns were first contrived also.

Not the least strange amongst the phenomena connected with new inventions is this, that they may be introduced, and their utility recognized, and yet they vanish after a time from causes not easily discoverable, to be re-discovered and made permanent in after-times. The omnibus and the metropolitan postage system in France both passed through these stages. So early as 1662, Paris had its system of omnibuses, invented, as it is said, by the great Pascal; yet twenty years afterward there was not one, even after its popularity had been fully established. The "*petite poste*," similar to our London "twopenny post," was introduced into Paris in 1653, and the proposal for its working was more perfect in some respects than those of more modern date, inasmuch as it provided for the conveyance of small parcels at a very cheap rate, as may be seen by the following odd announcement from a sort of rhyming newspaper of August sixteenth, 1653:

"On va bientôt mettre en pratique,
Pour la commodité publique,
Un certain établissement,
(Mais c'est pour Paris seulement.)
Des boîtes nombreuses et drues,
Aux grandes et petites rues,
Ou par soi-même ou ses laquais,

* Problemat. xxii. cap. 18.

* *Le Vieux Neuf*, vol. i. p. 267.

On pourra porter des *paquets*,
 Avis, billets, missives, lettres,
 Que des gens commis pour cela,
 Iront chercher et prendre là ;
 Pour d'une diligence habile,
 Les porter par toute la ville.
 Et si l'on veut s'avoir combien,
 Coutera le port d'un lettre,
 Chose qu'il ne faut pas obmettre,
 Afin que nul n'y soit trompé
 Ce ne sera qu'un *sou tapé*.^b

The plan was carried into execution, but there was no trick too ridiculous to be played upon it, no objectionable matter that was not put into the boxes under the semblance of parcels. Moreover, those who sent letters by them too frequently found that, instead of arriving at their destination, they were eaten up by mice, that boys, and perhaps children of larger growth, had put in by way of malice. And so ended the *petite poste*, for that period at least.

We shall conclude our illustrations of old novelties, or new antiquities, by a reference to the antiquity of the modern system of table-turning and spirit-rapping, which arts of imposture or delusion seem to have been as successfully practiced many centuries ago as now. We have before casually alluded to an account given by Marcellinus. It refers to a conspiracy against Valens ; in which divination by table-turning played an important part. But the conjurors were caught, and made to confess that they had constructed their table to give any indications that might be desired. They also had their letters of the alphabet

placed round some kind of metal basin or vessel, the letters of which were rapped out by a ring artfully suspended to a thread. We have not space for the details, which may be found in this author's *History of the Roman Emperors*, b. xxix. ch. iii. In Thibet, also, table-turning and moving, and the discovery of theft by such means, have been in use from time immemorial, as may be seen by reference to M. Fournier's second volume, p. 350, or to the *Thibetan Encyclopædia*, in one hundred and eight volumes, of which the first volume contains one thousand and eighty-eight pages! Spirit-rapping is of as ancient date, and with phenomena and tricks very similar to those produced and practiced in the present day. It would appear, therefore, that we are as much indebted to antiquity for our follies as for our more serious inventions, of which position numberless illustrations might be given.

M. Fournier's work contains a great mass of learning, and many valuable contributions to a history of science and art ; it would be more reliable were he more cosmopolitan in idea, and more charitable in judgment. His proofs almost force us to acknowledge that our century is not remarkable for absolute novelty of invention ; but to it alone belongs the credit of having made art keep pace with science, of having utilized all knowledge, and of having sought up the dry bones of abstract theory to make them practically subservient to the moral and intellectual as well as physical well-being of our race.

From the London Eclectic.

THE SAD SIDE OF THE HUMORIST'S LIFE.*

WE have often said there are few things to us more mysterious, we sometimes think we may even say few things more solemn, than laughter. The popu-

* *The Works of Charles Lamb*. In Four Volumes. Moxon.
Memorials of Thomas Hood.

lar impression of it, we believe, is, that it is something that has sin for a father, and folly for a mother, and the doctrine is supported by venerable authority, which says : "I said of laughter that it is mad." That last sentence is perhaps what we even desire to maintain. That

laughter has its spring in a certain kind of insanity we do not doubt. But it flows out for healing the heart's wounds; and thus, while the highest laughter certainly springs from roots of sadness and sorrow, one might almost say that, as the heart must ache, its pains turn into experiences; and as they are uttered to the outer world, they become grotesquely mirthful, cheering the sufferer first in himself, and then in his audience.

Thus Lord Shaftesbury's well-known conclusion, that laughter is born of surprise, if true, as no doubt it is, is still only half the truth; it does not look far down into the roots of our nature. There is a wonderful affinity between the things of sorrow and the things of laughter, and mad merriment is sometimes, and often at no great distance, from the saddest fellowship with human tears.

It is Thomas Hood, one of the kings of laughter, who has so truly said:

"All things are touched with melancholy,
Born of the secret soul's mistrust,
To feel her fair, ethereal wings
Weighed down with vile, degraded dust,
E'en the bright extremes of joy
Bring on conclusions of disgust.
Like the sweet blossoms of the May,
Whose fragrance ends in must.
Oh! give her then her tribute just,
Her sighs and tears and musings holy.
There is no music in the life
That sounds with idiot laughter solely:
There's not a string attuned to mirth
But has its chord in melancholy."

There is no character in our English literature exactly like Charles Lamb—we have no humorist of so subtle and pensive and refined an order. There are few characters, who have enhanced the sweetness and the lustre of our literature we love as we love Charles Lamb. And to us that character has a sanctity which perhaps it may be difficult for all our readers to forgive us for feeling. We narrow-minded sectaries limit our sympathies within so contracted a space, that many who have unfortunately lived in a distant fold can not enlist our more sacred and religious love. Yet Charles Lamb has ours. His griefs make him most venerable to us. His frailties—we press our fingers on our lips when they are mentioned to us. We will not hear them spoken of but with awe and with fear. His laughter is very solemn to us, it has a melancholy cadence:

it is even like an ancient masque set to a solemn music.

Heroism is a more common virtue than we believe it to be. Perhaps the greatest reason of our disbelief is, that we have been, and are capable, most of us, of being heroes ourselves at a pinch. We are all heroes when we overcome that which threatens to overcome us; we are all heroes when we are able to chain some darling desire, or to say to some powerful passion, Be thou still—I disown thee. Charles Lamb, the poor East-India clerk, with his thin, shivering, timid-looking frame and features—he was a hero: he gave himself no heroic airs—he affected nothing, and he spoke in no heroic tones; but he had that soul which could sustain itself in good convictions in spite of circumstances. This it is to be a hero. Those of you who have read that big, but somewhat unprofitable book—the Life of Moore—may remember his sneers at Lamb. They met two or three times, but there could be but little affinity with each other. How could there be? If there was a footman among poets, Thomas Moore was the man. He was not a poet laureate, but what we may rather call a kind of poet lord-mayor; he had an amazing love for the mansion-house, and the lace, and the gold chain, and especially the turtle-soup. We don't think a man in our age, with any genius, could at all match him for the large capacity of appetite he had for these pleasant things. That literary exquisite, who could never dine comfortably unless he dined at least with a lord, mentions that once upon an occasion he condescended to what he called "a singular company"—in fact, Rogers, Wordsworth, Coleridge, and Charles Lamb! Certainly, we should also say, and not with a sneer, a singular company. Charles Lamb was, he says, "a clever fellow certainly; and his sister, the poor woman who went mad with him in the diligence on his way to Paris," etc. These are the words in which this insufferable puppy alludes to one of the most touching stories of human sorrow and of human serenity possible to be told. We will try to tell this story to our readers. We have no sentimental Thomas Moores among them, or we would not profane the story by reciting it to them. It is a story of insanity. How is it that insanity has such a fascination for us? Hereafter,

when our health shall be fully restored, we shall learn for the first time what it is to be insane. How is it that, as we approach the insane, a higher veneration of a more tender pity seems to flow over us than when we approach any other kind of human sorrow? And perhaps there is nothing that tends more to right a mind hovering on the dizziness of some great darkness than some call out of the mind upon its watchfulness and sympathy. Lamb experienced both these states, he knew the dreadfulness of insanity, and he knew that strong reaction from the painful sense of our own being which comes from the claim presented to us by another.

Lamb was a Londoner. He loved London with a passion as Wordsworth loved the lakes and as Tom Moore loved a lord. He writes to Wordsworth:

"Separate from the pleasures of your company, I don't now care if I never see a mountain in my life. I have passed all my days in London, until I have formed as many and intense local attachments as any of you mountaineers can have done with dead nature. The lighted shops of the Strand and Fleet street, the innumerable trades, tradesmen, and customers, coaches, wagons, play-houses; all the bustle and wickedness round about Covent Garden; the watchmen, drunken scenes, rattles; life awake, if you awake, at all the hours of the night; the impossibility of being dull in Fleet street, the crowds, the very dirt and mud, the sun shining upon houses and pavements, the print-shops, the old book-stalls, parsons cheapening books, coffee-houses, steams of soups from kitchens, the pantomimes—London itself a pantomime and a masquerade—all these things work themselves into my mind, and feed me without a power of satiating me. The wonder of these sights impels me into night-walks about her crowded streets, and I often shed tears in the motley Strand from fullness of joy at so much life. All these emotions must be strange; so are your rural emotions to me. But consider, what must I have been doing all my life, not to have lent great portions of my heart with usury to such scenes?"

Lamb confessed to a weakness to "a town-life and a hot supper." He says again:

"I must confess that I am not romance-bit about *Natura*. The earth, the sea, and sky, (when all is said,) is but a house to dwell in. If the inmates be courteous, and good liquors flow like the conduits at an old coronation, if they can talk sensibly, and feel properly, I have no need to stand staring upon the gilded looking-glass, (that strained my friend's purse strings

in the purchase,) nor his five-shilling print over the mantle-piece of old Nabbs the carrier, (which only betrays his false taste.) Just as important to me (in a sense) is all the furniture of my world; eye-pampering, but satisfies no heart. Streets, streets, streets, markets, theaters, churches, Covent Gardens, shops sparkling with pretty faces of industrious milliners, neat seamstresses, ladies cheapening, gentlemen behind counters lying, authors in the streets with spectacles, (you may know them by their gait,) lamps lit at night, pastry-cook and silver-smith shops, beautiful Quakers of Pentonville, noise of coaches, drowsy cry of mechanic watchmen at night, with bucks reeling home drunk; if you happen to wake at midnight, cries of fire and stop thief; inns of court, with their learned air, and halls, and butteries, just like Cambridge colleges; old book-stalls, 'Jeremy Taylors,' 'Burtons on Melancholy,' and 'Religio Medicis,' on every stall. These are thy pleasures, O London, with the many sins! O city abounding in —! for these may Keswick and her giant brood go hang?"

"God made the country, and man made the town," and for this very reason it is that man will like the town the best. It must be a simple and an innocent, if a high nature, that can endure a life in the country; it is a test of mental health to grow there. Luxury, no doubt, finds itself most at home in London, in the gay town; so also does the nature fearful of itself. Prone to humanity, Lamb lived in London before London had stepped out to the suburbs on every side. London is, no doubt, the very metropolis of cheap pleasures—it spoils us for other living; but what are all these compared to its painful interests, its many-voiced, its many-featured humanity—its loud-sounding and most tragic woes—its lighter shades of pleasant comedy—its glaring streets—its darker lanes—its illuminated bridges—its dear, magnificent, gloriously nasty river—its rural retreats on every side? Don't talk to us of mountains; there is one thing in our streets you shall look for in vain in country towns or rural scenes—the dear, quaint, beautiful, old book-stall.

Christ's School was, we dare to say, a very different-looking building eighty years since. While the great city still roared around, there were two lads in that school destined to paths in life how different, yet to be linked together by friendship till dissolved by death in 1834; one of them has, in grand words, immortalized by a graphic touch the other. "Come back into memory, like

as thou wert in the dayspring of thy fancies, with hope like a fiery column before thee, the dark pillar not yet turned—Samuel Taylor Coleridge, logician—metaphysician—bard! How have I seen the casual passers through the cloisters stand still entranced with admiration (while he weighed the disproportion between the speech and the garb of the young *Mirandula*) to hear thee unfold, in thy deep and sweet intonations, the mysteries of Jamblichus, or Plotinus—for even in those days thou waxedst not pale at such philosophic drafts—or reciting Homer in his Greek, or Pindar, while the walls of the old Gray Friars reëchoed to the accents of *the inspired charity-boy!* So spake the one school-fellow of the other. He who so spake was, at that period, a gentle, amiable boy; he had been born in Crown Office Row, in the inner Temple; he had thus moved from cloister to cloister; his weak and nervous frame rendered him unfit for the athletic exercises of his comrades, and so, by master and by scholars, he was an indulged lad; he had an infirmity of speech too, but his gentleness was such that one of his school-fellows testifies of him he never heard his name mentioned without the addition of Charles, although he was the only boy of his name in the school. "While others were all fire and play, he stole along with all the self-concentration of a young monk;" "his countenance was so mild—his complexion clear brown, with an expression which might lead you to think he was of Jewish descent; his eyes were not of the same color: one was hazel, the other had specks of gray in the iris; his step was slow and peculiar, adding to the staid appearance of the figure." Without doubt, what some would call a milksop of a boy—without energy or fitness for the great work of life. We shall see. This lad, the school-fellow and the friend and eulogist of Coleridge, the young monk, the lonely stutterer, was Charles Lamb. When Lamb left Christ's Hospital, he very shortly obtained some trifling appointment, first in the South-Sea House, and afterward in the East-India House. When Lamb died, his sister survived him. Judge Talfourd wrote his life and edited his remains; but when Mary Lamb died, the same admiring and admirable editor published another volume, and then all about Lamb was fully known, and then for the first time was

understood the foundation of that reverent eulogy which William Wordsworth placed upon the coffin of his friend "Lamb, the frolic and the gentle:"

"To a good man of most dear memory
This stone is sacred. Here he lies apart
From the great city where he first drew
breath,
Was reared and taught, and humbly earned
his bread,
To the strict labors of the merchant's desk
By duty chained. Not seldom did those
tasks
Tease, and the thought of time so spent
depress
His spirit; but the recompense was high—
Firm Independence, Bounty's rightful sire;
Affections warm as sunshine, free as air!
And when the precious hour of leisure came,
Knowledge and wisdom, gained from converse sweet
With books, or while he ranged the crowded
streets
With a keen eye, and overflowing heart;
So genius triumphed over seeming wrong,
And poured out truth in works by thoughtful love
Inspired—works potent over smiles and tears.
And as round mountain-tops the lightning
plays,
Thus innocently sported, breaking forth
As from a cloud of some grave sympathy,
Humor and wild instinctive wit, and all
The vivid flashes of his spoken words.
From the most gentle creature nursed in
fields
Had been derived the name he bore—a
name,
Wherever Christian altars have been raised,
Hallowed to meekness and to innocence;
And if in him meekness at times gave way,
Provoked out of herself by troubles strange,
Many and strange, that hung about his life;
Still, at the center of his being, lodged
A soul by resignation sacrificed:
And if too often, self-reproached, he felt
That innocence belongs not to our kind,
A power that never ceased to abide in him,
Charity, 'mid the multitude of sins
That she can cover, left not his exposed
To an unforgiving judgment from just heaven.
Oh! he was good, if e'er a good man lived!"

We lay our hand upon those two volumes, and they seem to us cheerfully, painfully affecting. So we say we have all our published and unpublished life; there are our works which the world sees, and criticises, and rudely comments upon; but beneath all that, in all of us there is a better life. Poor Lamb! his essays and his poems are very droll and quaint, weird, quiet, wonderful things in their way—things that some of us do

for our parts distinctly prefer to Macaulay's Essays, and Childe Harolds, and Giaours, and things of that sort; and the writer, a quaint, queer, black dwarf sort of a man, somehow suggesting a deformity altogether in providential plans, a sort of thing for sentimental Tom Moores to shoot their peas at, a kind of book-stall-haunting scarecrow, with that wild, frightened, timid look of his; a man lonely, reserved, just keeping himself in his plain way in quiet London apartments with his sister—sometimes too, we fear to say, a little the worse for —

Well, we must be ungenerous; Lamb was really no teetotaler. And then he dies, and his sister dies, and then it is found that this poor great soul has been the center of tragedies which make Shakespeare's light in comparison, that all life long the curtains of a lonely woe hung round him, that all life long he was listening to the voice of love informing his sense of duty, and that all life long he was shadowed by evils which sometimes compelled him to infirmities—a poor, meek spirit, fainting often beneath a load too hard almost to bear.

"Islington," writes Lamb to Coleridge, "possibly you would not like, to me 'tis classical ground." And we know something that will make all grounds classical, do we not? There was a fair-haired maid, one Anna, of whom we hear very little; but there are two or three sweet sonnets addressed rather to a memory than to her. The young man was walking about Islington fields, in 1795 and 1796, and looking forward to promotion in the India House, and to the pleasant sweetness of coming times. At this time he lodged with his father and mother and sister, in Little Queen street, Holborn; there had been insanity in the family—Lamb himself had not escaped. But in 1796, the whole current of his life was changed; his sister, in a fit of insanity, killed their mother. The father was a poor, bed-ridden man, the mother had been an infirm invalid; and the way in which Charles now rose to the greatness of the trial, was as sublime as is the record of his feelings. A jury instantly returned a verdict of insanity; he wrote to Coleridge: "My poor, dear, dearest sister the unhappy and unconscious instrument of the Almighty's judgments on our house, is restored to her senses." His had been the hand which had snatched the knife from his

sister's grasp. "I hope," he says, "for Mary I can answer, but I hope that through life I shall never have less recollection, nor a fainter impression of what has happened, than I have now. It is not a light thing, nor meant by the Almighty to be received lightly; I must be serious, circumspect, and deeply religious through life; and by such means, may both of us escape madness in future, if it so please the Almighty." "He wrested," says Judge Talfourd, his leisure hours now from Coleridge and poetry to amuse the dotage of his father; and he watched over his own returning sense of enjoyment, when it came after a long interval, with a sort of holy, jealous apprehension lest he should forget too soon the terrible visitation of heaven. We must not have our readers think hard things of Mary Lamb, poor thing! do we not know that it is in madness, in insanity, that souls of gentlest mold rush forth with most fierce and cruel heat? do not mock us when we say that Mary Lamb was as gentle as her name. How Wordsworth and his sister loved her, and Bernard Barton and his sister, and Talfourd—they all loved the meek, gentle, unconscious victim of so dreadful a deed; you will call it hallucination; but the poor creature always believed that a short time after the tragedy her mother came to her in her dreams, and forgave her and blessed her. "She never shrank," says Talfourd, "from alluding to her mother when any topic connected with her own youth made such a reference in other respects natural." She shared her brother's genius, and her *Tales from Shakespeare*, and *Mrs. Leicester's School*, and her *Poems for Children*, have made her name the favorite in a select, if not a large circle of readers. After the tragedy, poor Charles began to study for the family; their means were very limited, but he determined that his sister should not go to Bethlem, but to an hospital or private asylum. "If," said he, "my father, an old servant-maid, and I, can't live, and live comfortably, on £130 or £120 a year, we ought to burn by slow fires; and I almost would, that Mary might not go to Bethlem." And he consecrated himself as by a sacramental vow, to become henceforth through life the protector of his sister. There was another brother, John Lamb; he was well-to-do—he had taken his ease in the world, he was not fit himself to struggle with difficulties, nor was he accus-
tomed

ed to throw himself in their way, he said : " Charles, you must take care of yourself, you must not abridge yourself of a single pleasure you have been used to," etc. With his rich brother, Charles stands in very strong and beautiful contrast. His letters to Coleridge in those days are very painful. " With me," he says, " the former things have passed away, and I have something more to do than to feel."

" I have never," he says, " been otherwise than collected and calm ; I preserved a tranquillity which bystanders may have construed into indifference. Is it folly or sin to say that *it was a religious principle that most supported me* ? I felt that I had something else to do than to regret. On that first evening my aunt was lying insensible, to all appearances like one dying ; my father, with his poor forehead plastered over, from a wound he had received from a daughter, dearly loved by him, and who loved him no less dearly ; my mother, a dead and murdered corpse in the next room ; yet I was wonderfully supported. I closed not my eyes in sleep that night, but lay without terrors and without despair."

In the same letter he says again :

" Within a day or two after the fatal one, we dressed for dinner a tongue, which we had salted for some time in the house. As I sat down, a feeling like remorse struck me ; this tongue poor Mary got for me, and can I partake of it now when she is far away ? A thought occurred and relieved me ; if I give in to this way of feeling there is not a chair, a room, an object in our rooms that will not awaken the keenest griefs ; I must rise above such weaknesses. I hope this was not want of true feeling."

On another occasion, where it seemed that some who had come to visit were too unmindful of the presence of death, he says : " In an agony of emotion, I found my way mechanically to the adjoining room, and fell on my knees by the side of her coffin, asking forgiveness of heaven and sometimes of her for forgetting her so soon."

By and by his father died. Until this took place, the release of his sister was impossible. Even then her other brother opposed her discharge, and there was some terror lest the parish authorities might institute proceedings, placing her life at the disposal of the crown. But Charles came to her deliverance ; he satisfied all parties who had power to oppose her release by his solemn engagement that he would take her under his care for life. He faithfully kept his word ; she left the asylum, and took up her abode

for life with her brother. His income then was little more than one hundred pounds a year—he was about twenty-two years of age ; so they set forth together on their journey, his companion thus endeared to him by the strange calamity. Moreover, love has not been thought an easy thing to overcome ; he had been, with all the tenderness of his nature, passionately attached to a young lady residing among the " pleasant Islington fields " Our readers will not call him a dreaming poet — will they ? — when we tell them that he renounced all those hopes. There were woods not far from Islington then, it seems, and the foolish fellow frequented these " shades that mocked his step with many a wandering glade," and wrote sonnets to the past, and so on. We think, reader, you will not judge him very harshly ; perhaps you will even think with us, that there was nobility and martyrdom in this. In those days he tried to appropriate to himself the language of John Woolman : " Small treasure to a resigned mind is sufficient. How happy is it to be content with a little ; to live in humility, and feel that in us which breathes out this language, Abba, Father." And again he says : " I am recovering — God be praised for it — a healthiness of mind, something like calmness ; but I want more religion—*I am jealous of human helps and leaning-places*. I rejoice in your good fortunes. May God at the last settle you ! You have had many and painful trials ; humanly speaking, they are going to end ; *but we should rather pray that discipline may attend us through the whole of our lives*. A careless and a dissolute spirit has advanced upon me with large strides ; pray God that my present afflictions may be sanctified to me ! " He says again : " It is a great object with me to live near town, where we shall be much more private, and to quit a house and neighborhood where poor Mary's disorder, so frequently recurring, has made us a sort of marked people ; we can be nowhere private, except in the midst of London." He speaks of a visit paid to Oxford, particularly gratifying to him, but he says : " It was to a family where I could not take Mary with me, and I am afraid there is something of dishonesty in any pleasures I take without her." Coleridge had been desirous to receive her into his house, but Lamb replied : " I consider her as perpe-

tually on the brink of madness. I think you would almost make her dance within an inch of the precipice; she must be with duller fancies and cooler intellects. I know a young man of this description, who has suited her these twenty years, and may do so still, if we are one day restored to each other." We have quoted these passages from Lamb's letters, because they illustrate the sweet tenderness of that gentle nature: and so, from twenty to sixty, they went forth together.

We have already said that Mary Lamb shared the literary leisure of her brother: in the composition of *Mrs. Leicester's School*, that charming thing, and the *Stories from Shakspeare*, some hours were passed. But there was another side to their lovely devotedness, and the giant sorrow was constantly impending over them through life; often she had to leave her brother—she learned to know the premonitory symptoms of an attack. When the holidays came round, the relief and the charm of the year, they set forth together, but if they ventured to do so, Miss Lamb carefully packed herself a strait waistcoat in their trunk; it was their constant companion. As the symptoms made themselves known by restlessness, low fever, inability to sleep, she gently prepared her brother for the terrible duty he had to perform; and thus, unless he could stave off the terrible separation till Sunday, obliged him to ask leave of absence from the office as if for a day's pleasure, some quaint and witty dissimulation hiding the bleeding heart. "There was no tinge of insanity discernible in her manner to the most observant eye; not even in the distressful periods when premonitory symptoms apprized her of its approach;" and when the fearful time came upon her, she poured forth all the memories of events and persons of her younger years; then, too, in her rambling and broken words she would give brilliant descriptions of by-gone days, fancying herself with the richly brocaded dames of the times of Queen Anne and George I. Talfourd speaks of these as jeweled words and speeches, like those running through the works of the old masters of comedy. These were the states in which she was separated from her brother. On one occasion, Mr. Charles Lloyd, a well-known name and well-loved friend, met them slowly pacing together a little footpath

in Hoxton fields, built over now: they were both weeping bitterly. When he joined them he found they were taking their solemn way to the accustomed asylum. Is not such grief as venerable as it is awful? and do you not love already and revere Charles Lamb?

Thus, however slight hitherto may have been the reader's acquaintance with Lamb, we must have interested him in the writings as well as the character of one of the mightiest masters of humor. Perhaps the reader will ask us, What is humor? Humor, then, is the grief of life—as satire is the wrath of life. Humor is, therefore, the literature of tears, as satire is the literature of a fiery scorn. He to whom has been given a tender nature, a large sympathy with the grief of others, and a quick wit to seize and place in juxtaposition ideas, will be a humorist. Such natures interpret universal agonies by their own; the anguish they feel, but can not relieve, produces in them a divine hysteria, a misery over the anguish of the world. This is really the pleasure of the pun—this is the pleasure of the practical joke and of the rich humors in such passages as these, in which our writer laments the abolition of the custom of observing saints' days in public offices:

"Not that, in my anxious detail of the many commodities incidental to the life of a public office, I would be thought blind to certain flaws, which a cunning carper might be able to pick in this Joseph's vest. And here I must have leave, in the fullness of my soul, to regret the abolition, and doing away with altogether, of those consolatory interstices, and sprinklings of freedom through the four seasons—the *red-letter days*, now become, to all intents and purposes, *dead-letter days*. There was Paul, and Stephen, and Barnabas—

Andrew and John, men famous in old times

—we were used to keep all their days holy, as long back as I was at school at Christ's. I remember their effigies, by the same token, in the old Basket Prayer-Book. There hung Peter in his uneasy posture—holy Bartlemy in the troublesome act of flaying after the famous Marsyas by Spagnoletti.—I honored them all, and could almost have wept the defalcation of *Is cariot*—so much did we love to keep holy memories sacred: only methought I a little grudged at the coalition of the better Jude with Simon—clubbing (as it were) their sanctities together, to make up one poor gaudy-day between them—as an economy unworthy of the dispensation."

We have always felt that the most

painful feature in the humor of Lamb is its intense secretiveness; surprise, and therefore secretiveness is the element, the very aroma of all humor, of all wit—what we have just called the unexpected juxtaposition of ideas; but the secretiveness of Lamb was, even for a humorist, in whom we expect it, extraordinary. We have no doubt that, originally, he had a nature singularly brooding, and perhaps even to be called reserved, but by the possession of his sorrows he became himself conscious of a territory of internal emotion. All his essays read like that quiet humor which a man enjoys to himself, whether any one enjoys with him or not; few writings strike us as having such inwardness—hence what subtle weird touches abound in those pages. Who has not felt that subtle sentiment he expresses in his papers on the Quakers' Meeting, when he says:

"There are wounds which an imperfect solitude can not heal. By imperfect I mean that which a man enjoyeth by himself. Can there be no sympathy without the gabble of words? away with this inhuman, shy, single, shade-and-cavern-hunting solitariness. Give *me*, Master Zimmermann, a sympathetic solitude. To pace alone in the cloisters, or side-aisles of some cathedral, time-stricken:

'Or under hanging mountains,
Or by the fall of fountains;'

is but a vulgar luxury, compared with that which those enjoy who come together for the purpose of more complete, abstracted solitude. This is the loneliness 'to be felt.' The Abbey Church of Westminster hath nothing so solemn, so spirit-soothing, as the naked walls and benches of a Quaker's meeting. Here are no tombs, no inscription,

'sands, ignoble things,
Dropped from the ruined sides of kings'—

but here is something, which throws antiquity herself into the foreground—Silence—eldest of things—language of old Night—primitive discourser—to which the insolent decays of mouldering grandeur have but arrived by a violent, and, as we may say, unnatural progression."

We think there is no paper more touching, than that by our beloved penman, called *Dream Children*. We think it reminds us that the gentle Anna, the fair-haired maid with whom he wandered through the fields and woods about Islington, often came to his memory. He tells us in the *Essays of Elia* how, as children love to listen to stories about

their elders, when they were children, how *his* little ones came one night thronging about him to hear about their great grandmother Field, and the great house in Norfolk: oh! it is pitiful the way he went on with those children—how he told them stories about their pretty dead mother—how for seven long years, in hope sometimes, yet persisting ever, he courted the fair Alice; then he suddenly turns to little Alice, and saw the soul of the first Alice looking out of her eyes with such reality of representation—

"That I became in doubt which of them stood there before me, or whose that bright hair was; and while I stood gazing, both the children gradually grew fainter to my view, receding and still receding, till nothing at last but two mournful features were seen in the uttermost distance, which, without speech, strangely impressed upon me the effects of speech: 'We are not of Alice, nor of thee, nor are we children at all. The children of Alice call Bartrum, father. We are nothing, less than nothing, and dreams. We are only what might have been, and must wait upon the tedious shores of Lethe, millions of ages before we have existence and a name,'—and immediately awaking, I found myself quietly seated in my bachelor's arm-chair, where I had fallen asleep with the faithful Bridget unchanged by my side."

This is the very trick of humor; and we have another illustration in the essay on the Behavior of Married People to each other in Company:

"But what I complain of is, that they carry this preference so undisguisedly, they perk it up in the faces of us single people so shamelessly, you can not be in their company a moment without being made to feel, by some indirect hint or open avowal, that *you* are not the object of this preference. Now there are some things which give no offense, while implied or taken for granted merely; but expressed, there is much offense in them. If a man were to accost the first homely-featured or plain-dressed young woman of his acquaintance, and tell her bluntly, that she was not handsome or rich enough for him, and he could not marry her, he would deserve to be kicked for his ill-manners; yet no less is implied in the fact, that, having access and opportunity of putting the question to her, he has never yet thought fit to do it. The young woman understands this as clearly as if it were put into words; but no reasonable young woman would think of making this the ground of a quarrel. Just as little right have a married couple to tell me by speeches, and looks that are scarce less plain than speeches, that I am not the happy man—the lady's choice. It is enough that I know I

am not; I do not want this perpetual reminding."

"Nothing is to me more distasteful than that entire complacency and satisfaction which beam in the countenances of a new-married couple—in that of the lady particularly; it tells you, that her lot is disposed of in this world: that *you* can have no hopes of her. It is true, I have none; nor wishes either, perhaps; but this is one of those truths which ought, as I said before, to be taken for granted, not expressed."

"But what I have spoken of hitherto is nothing to the airs which these creatures give themselves when they come, as they generally do, to have children. When I consider how little of a rarity children are—that every street and blind alley swarms with them—that the poorest people commonly have them in most abundance—that there are few marriages that are not blest with at least one of these bargains—how often they turn out ill, and defeat the fond hopes of their parents, taking to vicious courses, which end in poverty, disgrace, the gallows, etc., I can not for my life tell what cause for pride there can possibly be in having them. If they were young phoenixes, indeed, that were born but one in a year, there might be a pretext, but when they are so common——"

"'Like as the arrows in the hand of the giant even so are the young children:' so says the excellent office in our Prayer-book appointed for the churching of women. 'Happy is the man that hath his quiver full of them.' So say I; but then don't let him discharge his quiver upon us that are weaponless; let them be arrows, but not to gall and stick us."

This is the consolation for that grief of life; thus, while it sits before the blazing coal and makes faces in fire forms of old days, old sweethearts or wives, dead and buried—disappointments—rising—falling, built and vanishing in the firelight—while the candle burns to the socket, the reality of re presentment comes, and first one hot tear, then another, then another, for those drops are too thick to come in a shower—they trickle like water from a well dug in the sand, then fancy unites itself with humor, and both flow in upon the tear and unite in one drop; and pictures cheerful, and perhaps almost farcical, of what might have been start to the eye, and the heart relieves itself by its dreams, dreams like all dreams—grotesque, because born of aberration. Despair was the canvas on which they were limned, and grief painted them, and emotion gave colors to them, and ignorance laughed at them, and said, Ah! ah! the merry humorist, what a happy, light-hearted creature he is! while he was "sitting alone and keeping silence, be-

VOL. LVI.—NO. 1

cause he had borne it on him," his hands pressed upon eyes, and the tears bursting through them, and a groan bursting from his heart and the exclamation: "O God! why hast thou made all men in vain." Such is the humorist.

Thus we have maintained that the humorist is born and taught—he is the representative of the grief of life. It is the fruit of excitement, the nerves roused to intensity on fire. Who does not know how excitement produces its own reaction? There are no letters in our language which so overflow with the keenest and richest fun as those of Lamb: it is not merely that we have here a light sportful grace, like those of Madame Sévigné; often from some queer and droll association the more serious underlying purpose is most visible. He was never wanting in what at any time compelled hilarious laughter. He wrote to Moxon: "We sleep three in a bed here; my bed-fellows are cough and cramp." He was a remorseless punster; indeed he could scarcely open his lips without dropping out some queer incongruity; he sometimes almost seemed to labor after those most laughable by their very absurdity. His ideas startled by their remoteness—it did sometimes seem that his humors took strange flights. It will be readily noticed, that in his humor of character he descends into the nicest detail; like Dickens, he interests his readers in a large variety of varied people, and their idiosyncrasies are sketched with a fine, subtle, discriminating hand; but from these he starts at a bound to some of the most perplexing casuistical questions—yet they are rather suggested than discussed. The judgment of Lamb was remarkable for its healthy, synthetic unity, while his humor was full of the finest and nicest personal analysis; he was a shrewd observer, if observation that can be called which receives its knowledge rather by painful sympathy than by any close or pointed scrutiny. How much of this appears in that singular piece:

THE CHILD-ANGEL: A DREAM.

"I chanced upon the prettiest, oddest, fantastical thing of a dream the other night, that you shall hear of. I had been reading *Loves of the Angels*, and went to bed with my head full of speculations, suggested by that extraordinary legend. It had given birth to innumerable conjectures; and I remember the last waking thought which I gave expression to on my pil-

low was a sort of wonder 'what could come of it.'

"I was suddenly transported, how or whither I could scarcely make out—but to some celestial region. It was not the real heavens neither—not the downright Bible heaven—but a kind of fairy-land heaven, about which a poor human fancy may have leave to sport and air itself, I will hope, without presumption.

"Methought—what wild things dreams are—I was present—at what would you imagine?—at an angel's gossiping.

"Whence it came, or how it came, or who bid it come, or whether it came purely of its own head, neither you nor I know; but there lay, sure enough, wrapt in its little cloudy swaddling-bands—a Child-Angel.

"Sun-threads—filmy beams—ran through the celestial napery of what seemed its princely cradle. All the winged orders hovered round, watching when the new-born should open its yet closed eyes; which, when it did, first one, and then the other—with a solicitude and apprehension, yet not such as, stained with fear, dim the expanding eyelids of mortal infants, but as if to explore its path in those its unhereditary palaces—what an inextinguishable titter that time spared not celestial visages! Nor wanted there to my seeming—oh! the inexplicable simpleness of dreams!—bowls of that cheering nectar,

—which mortals *caudle* call below.

Nor were wanting faces of female ministrants—stricken in years, as it might seem—so dexterous were those heavenly attendants to counterfeit kindly similitudes of earth, to greet, with terrestrial child-rites the young *present*, which earth had made to heaven.

"Then were celestial harpings heard, not in full symphony as those by which the spheres are tutored; but, as loudest instruments on earth speak oftentimes, muffled; so to accommodate their sound the better to the weak ears of the imperfect-born. And, with the noise of those subdued soundings, the Angelet sprang forth, fluttering its rudiments of pinions—but forthwith flagged and was recovered into the arms of those full-winged angels. And a wonder it was to see how, as years went round in heaven—a year in dreams is as a day—continually its white shoulders put forth buds of wings, but wanting the perfect angelic nutriment, anon was shorn of its aspiring, and fell fluttering—still caught by angel hands—forever to put forth shoots, and to fall fluttering, because its birth was not of the unmixed vigor of heaven.

"And a name was given to the Babe Angel, and it was to be called *Ge-Urania*, because its production was of earth and heaven.

"And it could not taste of death, by reason of its adoption into immortal palaces; but it was to know weakness, and reliance, and the shadow of human imbecility; and it went with a lame gait; but in its goings it exceeded all

mortal children in grace and swiftness. Then pity first sprang up in angelic bosoms; and yearnings (like the human) touched them at the sight of the immortal lame one.

"And with pain did then first those Intuitive Essences, with pain and strife, to their natures (not grief) put back their bright intelligences, and reduce their ethereal minds, schooling them to degrees and slower processes, so to adapt their lessons to the gradual illumination (as must needs be) of the half-earth-born; and what intuitive notices they could not repel (by reason that their nature is to know all things at once) the half-heavenly novice, by the better part of its nature aspired to receive into its understanding; so that Humility and Aspiration went on even-paced in the instruction of the glorious Amphibium.

"But by reason that Mature Humanity is too gross to breathe the air of that super-subtile region, its portion was, and is, to be a child forever.

"And because the human part of it might not press into the heart and inwards of the palace of its adoption, those full-natured angels tended it by turns in the purlieus of the palace, where were shady groves and rivulets, like this green earth from which it came: so Love, with Voluntary Humility, waited upon the entertainment of the new-adopted.

"And myriads of years rolled round, (in dreams Time is nothing,) and still it kept, and is to keep, perpetual childhood, and is the Tutelar Genius of Childhood upon earth, and still goes lame and lovely.

"By the banks of the river Pison is seen, lone sitting by the grave of the terrestrial Adah, whom the angel Nadir loved, a Child; but not the same which I saw in heaven. A mournful hue overcasts its lineaments; nevertheless, a correspondency is between the child by the grave, and that celestial orphan, whom I saw above; and the dimness of the grief upon the heavenly, is a shadow or emblem of that which stains the beauty of the terrestrial. And this correspondency is not to be understood but by dreams.

"And in the archives of heaven I had grace to read, how that once the angel Nadir, being exiled from his place for mortal passion, upspringing on the wings of parental love, (such power had parental love for a moment to suspend the else irrevocable law,) appeared for a brief instant in his station, and depositing a wondrous Birth, straightway disappeared, and the palaces knew him no more. And this charge was the self-same Babe, who goeth lame and lovely—but Adah sleepeth by the river Pison."

Thomas Hood and Charles Lamb were friends. In the peculiarity of their genius, there was much that was atwin. Both were humorists; both were most incorrigible and preëminent punsters. We have always felt that Hood did injustice to the higher forms of his genius by

his incessant punning. Now, there can be no doubt this spirit of fun-seeking does produce a most unhealthy state of mind. We confess, while we do enjoy a piece of mere drollery in verse as much as most, it is to us quite mournful to see genius expending itself on incessant work like this. We can enjoy an Ingoldsby Legend. A volume of them, and a volume of them by a clergyman, is too much. Some men have some distressing personal deformity of eye or lip. If they choose to turn this for a moment into a matter of personal joke, we may admire the heroism; but if they prefer to make it the topic for a continued table-talk, it becomes disgusting, and gives, to our mind, an unpleasant impression of moral sensibility. Some of the "Miscellanies" of Mr. Thackeray are in this way, we will maintain it, miserable trash, very unworthy of the high artist-power of the author of *Vanity Fair*. The professed punster—we do not mean the cheerful and sunny heart, compelled frequently to see a drollery, and to say it, and to charm a company by it, but we say the professed punster—is like the editor of *Punch*, he is compelled to look especially after the funny side of things; and while these gentlemen sneer at those who are perpetually taking the serious side of life, we think they will also admit that it can not be morally invigorating to be perpetually assuming the funny side of life. Such is not the character of the true humorist. Such men can not claim Shakspeare as of their side and school. There are many infinite varieties of distance between the drollery of a clown at the country fair and the *Voyages of Captain Lemuel Gulliver*. Yet even poor clown at the country fair, who shall say to what extent the pinchings of poverty and the sense of moral degradation, in a nature originally cast in a mold of gentleness and thought, have produced all those spasmodic contortions of body and of speech? We have seen those poor things and have always felt that these, too, were some of the writhings of a soul in pain. We care little what our friends will think or say: the comicalities of Thomas Hood are of little worth in our mind compared with the *Bridge of Sighs*, or the *Haunted House*. But now it becomes quite noticeable that, in his soul, the frolicsomeness of which for the most part was only seen, there was within the soul the tragic ele-

ment. The soul of the true humorist comes out in the *Dream of Eugene Aram*, and in a multitude of other things and lines which convey the sense of awe and mystery. No true humorist ever spoke long without showing to you how he was smitten with the sense of the solemnity of life and its infinite environments. Thomas Hood seems to revel in a sea of funny and comical suggestion; but this will certainly not be the principal impression produced by his writings. The bright things in *Hood's Own* go fizzing about like squibs and crackers on a Fifth of November night. It may seem a singular thing to say, but Hood had not the intense humanness, the pitying interest of Lamb. What roused him was injustice, and wrong, and sorrow. To Lamb, every body was interesting, and he made every being he saw, or attempted to describe, most human and interesting. He had in this particular the faculty of Dickens and Shakspeare. The humor of Hood lay nearer to the *abstract*. He saw the pitiful conditions of things, and of persons, but he did not see "every man in his own humors;" and while he was assuredly a humorist, and not a satirist, his genius drew nearer to the satiric form. This is well illustrated in the two polemical "Disputations" of Lamb in reply to Southey, and Hood in reply to Rae Wilson. Both are remarkable. Hood's Ode is well known. Some passages are among the happiest of our author's efforts; but they are so very well known, that it would only be a waste of our limited space to quote what all our readers have in their memory. Lamb, in his reply to Southey, stands on higher ground, and expresses himself with his more refined and subtler sense. Southey had, in a semi-jocular vein, hinted in the *Quarterly* that Lamb, in the *Essays of Elia*, had manifested only "a want of sounder religious feeling to be as delightful as it was original." It was a most unkind and unjust remark, especially unwarranted from such a man. Lamb felt it severely. He wrote to Bernard Barton:

"He might have spared an old friend such a construction of a few careless flights that meant no harm to religion. If all his unguarded expressions on the subject were to be collected—but I love Southey, and will not retort. I hate his Review, and his being a reviewer. The hint he has dropped will knock the sale of the book

on the head, which was almost at a stop before. Let it stop! There is corn in Egypt, while there's cash in Leadenhall! You and I are something besides being writers, thank God!"

But he did retort, in one of the most remarkable pieces of composition in our language, of course in prose—a piece of sly, dexterous English. It is, as in a mirror, the mind of Lamb. All his droll, half-hesitating, reserved humors, and his half-uttered religious doubts and tremblings. Suddenly, he impales poor Southey on the spear-head of some of his happiest hits. As when in allusion to many of Southey's Poems, he says: "You have all your life long been making a jest of the devil. You have been his jester, volunteer laureate, and self-elected court-poet to Beelzebub:"

"You have never ridiculed, I believe, what you thought to be religion, but you are always girding at what some pious, but perhaps mistaken folks think to be so. For this reason I am sorry to hear that you are engaged upon a life of George Fox. I know you will fall into the error of intermixing some comic stuff with your seriousness. The Quakers tremble at the subject in your hands. The Methodists are shy of you, on account of *their* founder. But, above all, our Popish brethren are most in your debt. The errors of that Church have proved a fruitful source to your scoffing vein. Their Legend has been a golden one to you. And here your friends, sir, have noticed a notable inconsistency. To the imposing rites, the solemn penances, devout austerities of that communion; the affecting though erring piety of their hermits; the silence and solitude of the Chartreux—their crossings, their holy waters, their Virgin and their saints—to these, they say, you have been indebted for the best feelings and the richest imagery of your epic poetry. You have drawn copious drafts upon Loretto. We thought at one time you were going post to Rome—but that in the facetious commentaries, which it is your custom to append so plentifully, and (some say) injudiciously, to your loftiest performances in this kind, you spurn the uplifted toe, which you but just now seemed to court, leave his Holiness in the lurch, and show him a fair pair of Protestant heels under your Romish vestment. When we think you already at the wicket, suddenly a violent cross-wind blows you transverse—

"'Ten thousand leagues awry——

——Then might we see

Cowls, hoods, and habits, with their wearers, tost
And fluttered into rags; then reliques, beads,
Indulgences, dispenses, pardons, bulls,
The sport of winds.'

You pick up pence by showing the hallowed bones, shrine, and crucifix; and you take money a second time by exposing the trick of

them afterward. You carry your verse to Castle Angelo for sale in a morning; and swifter than a peddler can transmute his pack, you are at Canterbury with your prose ware before night."

The following is in a more sad and solemn vein:

"I am at a loss what particular essay you had in view (if my poor ramblings amount to that appellation) when you were in such a hurry to thrust in your objection, like bad news, foremost. Perhaps the paper on 'Saying Graces' was the obnoxious feature. I have endeavored there to rescue a voluntary duty—good in place, but never, as I remember, literally commanded—from the charge of an undecent formality. Rightly taken, sir, that paper was not against graces, but want of grace—not against the ceremony, but the carelessness and slovenliness so often observed in the performance of it.

"Or was it *that* on the 'New Year,' in which I have described the feelings of the merely natural man, on a consideration of the amazing change, which is supposable to take place on our removal from this fleshly scene? If men would honestly confess their misgivings, (which few men will,) there are times when the strongest Christian of us, I believe, has reeled under questionings of such staggering obscurity. I do not accuse you of this weakness. There are some who tremblingly reach out shaking hands to the guidance of faith—others who stoutly venture into the dark, (their Human Confidence their leader, whom they mistake for Faith;) and, investing themselves beforehand with cherubic wings, as they fancy, find their new robes as familiar and fitting to their supposed growth and stature in godliness, as the coat they left off yesterday—some whose hope totters upon crutches—others who stalk into futurity upon stilts.

"The contemplation of a Spiritual World—which, without the addition of a misgiving conscience, is enough to shake some natures to their foundation—is smoothly got over by others, who shall float over the black billows, in their little boat of No-Distrust, as unconcerned as over a summer sea. The difference is chiefly constitutional.

"One man shall love his friends and his friend's faces; and under the uncertainty of conversing with them again, and in the same manner and familiar circumstances of sight, speech, etc., as upon earth—in a moment of no irrevocable weakness—for a dream-while—no more—would be almost content, for a reward of a life of virtue, (if he could ascribe such acceptance to his lame performances,) to take up his portion with those he loved, and was made to love, in this good world, which he knows—which was created so lovely, beyond his deservings. Another, embracing a more exalted vision—so that he might receive indefinite addittaments of power, knowledge, beauty, glory, etc.—is ready to forego the recognition of humbler individualities of earth, and the old familiar faces. The

shapings of our heavens are the modifications of our constitution; and Mr. Feeble Mind, or Mr. Great Heart, is born in every one of us."

We think we would point to that letter as containing some of Lamb's quaintest and queerest conceits. The letter is, however, full of the writer's amiable humor. He says:

"Sir, you were pleased (you know where) to invite me to a compliance with the wholesome forms and doctrines of the Church of England. I take your advice with as much kindness as it was meant. But I must think the invitation rather more kind than seasonable. I am a Dissenter. . . . Perhaps I have scruples to some of your forms and doctrines. But if I come, am I secure of civil treatment?—The last time I was in any of your places of worship was on Easter Sunday last. I had the satisfaction of listening to a very sensible sermon of an argumentative turn, delivered with great propriety by one of your bishops. The place was Westminster Abbey. As such religion as I have has always acted on me more by way of sentiment than argumentative process, I was not unwilling, after sermon ended, by no unbecoming transition, to pass over to some serious feelings, impossible to be disconnected from the sight of those old tombs, etc. But, by whose order I know not, I was debarred that privilege even for so short a space as a few minutes; and turned like a dog or some profane person, out into the common street; with feelings which I could not help, but not very congenial to the day or the discourse. I do not know that I shall ever venture myself again into one of your churches."

All Lamb's writings look old. It is scarcely possible to believe, if we did not know, that they are the product of our time. They sound like words of the age of old Fuller, or Sir Thomas Browne. His words and essays are like those of a man thinking aloud—words taken down by a reporter behind the bookshelves or the curtains. There is about him always a kind of fear lest you should find him out. He is always gentlemanly, polite, learned, and pleasant. But if you catch him talking about himself, it is in a kind of soliloquy. Such people are always a problem. We look forward to *their* journals with avidity. The diary of Talkative has its interest, but the diary of a speechless thinker would be far more so. "Man is dear to man;" and those writers are dearest to us to whom man has been most dear—dear, not as an idealization, or an abstraction, or a theory; men who can not either get out of their own souls, or tell us what they can do with them; men

who are a perpetual puzzle to themselves; men who, dazed at the mystery of their own being—at the mystery of being in itself—turn, by way of refreshment and rest, to other beings like themselves.

A man in a cage is always an interesting object. When we were a youngster, we saw regularly pass our door a rough fellow, who certainly never excited our attention or regard, but he committed some breach of the peace—was locked in the old cage in the Broadway, as was the wont in those times, when policemen and station-houses were not; and then we, and many others like ourselves, went and stood gaping at the poor fellow, safe in that mystery behind the bars. He, like all reserved natures, had suddenly become most interesting to us by his immurement. This is the interest of many lives. They charm away the spell of some of the more heavy and iron padlock secrets, and handcuff mysteries of the soul, by carrying about with them a bunch of private keys, with which they admit their friends into strange little secret crypts and wards, while yet the great hidden inner city of their soul, through which they are constantly walking, remains unexplored and unknown. And here again is the humorist's grief of life. As we have hinted, Hood strikes us by no means as so awful a being as Lamb. He had never been smitten, stricken, and afflicted as Lamb was, and he walked more among all sorts of men than Lamb did; and his works show less culture of the mystery within us. Of course, when sorrow strikes, what it evokes depends as much upon what is stricken as upon that which gives the blow. He had his griefs. They were like those we all have known, or may know—griefs like those which appear in his recently published letters. His excellent and ingenious son, for whom we will all wish a heart, and life, and fame as noble and stainless as his father's, says that, looking over some old papers of his father's, he found a few tiny curls of golden hair, as soft as the finest silk, wrapped in a yellow and time-worn paper, inscribed in his father's handwriting:

"Little eyes that scarce did see,
Little lips that never smiled;
Alas! my little dear dead child,
Death is thy father, and not me;
I but embraced thee soon as he."

Are they not very sweet and natural

lines, on the little first-born child? And these, and the like of these he knew well. Hood was a noble being, but he struck the popular nerve—we do not mean the human nerve—more immediately than Lamb. We have already said that his genius was nearer than Lamb's to the wrath of life, to passion, and to satire. His gentleness might be roused to indignation. We have no knowledge that Lamb's ever was. Hood's, when poverty was injured, as we know, leapt into flame and smote the wrong.

Hood had a nimble-footed verse, that could run, leap, trot, gallop, and also kick. He could do all things with that same verse of his. He might have been the Sam Butler of his age; and, indeed, his ode to Rae Wilson is not wanting in some certain Hudibrastic characteristics. We suppose one great feature in the writings of Hood is that, in a very memorable way he hit hard blows on some of the sins of society, especially on some of the religious sins. We know that we religious people—for we are religious—we know that we suppose ourselves to be very faultless—snow white. Our garments are all made of bishops' lawn—coats, gowns, breeches, bonnets, and all—and mud won't stick upon them. Still, some people say to the contrary. It has been thought that we occasionally need preaching to a little. It has been supposed that we have our peccadilloes. Then, as it is a well known and carefully ascertained fact, that preachers can not talk plainly to their own people—people could scarcely be expected to take sittings to be spoken with plainly—why, we must e'en permit the Hoods to preach for us; at any rate, to let us all know what the world outside thinks of some of our ways. We must confess that we can take little exception to most of Hood's sermons; but, then, we are said to be latitudinarian. We could have wished sometimes less bitterness. We can not say that we like Thomas Hood's "tract." Charles Lamb would have answered that troublesome old lady better, and have made her feel more. We have taken up our testimony against disagreeable Christians. There are some whose type of Christian life is disgusting to us. It simply turns the milk of young souls sour. These people do

"Think they're pious, when they're only bilious."

Thomas Hood was so unfortunate as to see religion principally from this side. is no wonder that he made his views manifest upon the unfortunates who were tempted to interfere with him. We said that his life was checkered with adversities, lightened also by merriment and some sweet gleams of sunshine. This man, whom some religious gentlemen were persecuting on account of his merry and cheerful words, with their sneers and gibes, his son says:

"As a little child, my first prayer was learnt from my *father's* lips; my first introduction to the Bible, which he honored too much to make a task-book, was from spelling out the words of the first chapter of the Sermon on the Mount, as it lay on his study-table; my earliest lessons of the love and beauty hid in every created thing, were from the stores of his observant mind; my deepest and holiest teachings, too sacred for more than a mere allusion, were given often in the dead of the night, when I was sitting up sometimes alone, by my father's dying-bed."

This was the man to whom some disgusting thing in petticoats said, as such impertinents will say: "Mr. Hood, are you an infidel?" As he drew near to death, he manifested that presence of mind which is, we think, especially the property of those introvisionary and introspective and secluded spirits. Of course he was of a nervous nature. His son says:

"One night I was sitting up with him, my mother having gone to rest for a few hours, worn out with fatigue. He was seized about twelve o'clock with one of his alarming attacks of hemorrhage from the lungs. When it had momentarily ceased, he motioned for paper and pencil, and asked 'if I was too frightened to stay with him.' I was too used to it now, and on my replying, 'No,' he quietly and calmly wrote down his wishes and directions on a slip of paper, as deliberately as if it were an ordinary matter. He forbade me to disturb my mother. When the doctor came, he ordered ice to be applied. My father wrote to remind me of a pond close by where ice could be procured. Nor did he forget to add a hint for refreshments to be prepared for the surgeon, who was to wait some hours to watch the case. This was in the midst of a very sudden and dangerous attack, that was, at the time, almost supposed to be his last."

To this period also belong the well-known lines

FAREWELL, LIFE.

"Farewell, Life! my senses swim,
And the world is growing dim:

Thronging shadows cloud the light,
Like the advent of the night—
Colder, colder, colder still,
Upward steals a vapor chill;
Strong the earthy odor grows—
I smell the mold above the rose!

"Welcome, Life! the Spirit strives!
Strength returns and hope revives;
Cloudy fears and shapes forlorn
Fly like shadows at the morn.
O'er the earth there comes a bloom;
Sunny light for sullen gloom,
Warm perfume for vapor cold—
I smell the rose above the mold!"

And when the close came, he clasped his wife's hand, and said: "Remember Jane, I forgive all, *all*, as I hope to be forgiven." And the sweet and full and tender attachment to his wife, forbids us to conclude that he was thinking of more than some of his saintly persecutors; and then lying for some time peacefully and quietly, but breathing slowly and with difficulty, his wife bent over him, and heard him say: "O Lord! say, Arise, take up thy cross, and follow me." His last words were, "Dying, dying!" as if glad to realize the rest implied in them, and shortly after he sank into peaceful sleep, without a struggle or a sigh.

We honor and love Thomas Hood; but if the truth must be told, we seem to know Charles Lamb better. Somehow we think we should have got on better with him; if it is not an audacious thing to say—perhaps we might have found some things in common. Lamb loved old books. He was an old book-collector. We also have some old folios upon whose merits we might have become vain in talking with the old man. We think we should have discoursed together of the merits of Mather's "Magnalia," or "Sir Kenelm Digby on the Soul;" of the "Poems of the rare Duchess of Newcastle," of Davenant and Stirling, of Wither and Quarles, of James Howell and John Goodman. Lamb was a haunter of book-stalls. Alas! there are no cheap old books now. The value of the gold is known, and the book-worms find that they can only burrow into that fine old earth through a gold mine.

We enjoy his triumphs:

"'I have just come from town,' says he, 'where I have been to get my bit of quarterly pension, and have brought home from stalls in Barbican, the *Old Pilgrim's Progress*, with the

prints, *Vanity Fair*, etc., now scarce—four shillings. Cheap. And also one of whom I have often heard, and had dreams, but never saw in the flesh—that is, in the sheepskin—'The Whole Theological Works of

THOMAS AQUINAS!'

My arms ached with lugging it a mile to the stage; but the burden was a pleasure, such as old Anchises was to the shoulders of Æneas, or the lady to her lover in the old romance, who, having to carry her to the top of a high mountain, the price of obtaining her, clambered with her to the top, and fell dead with fatigue.

'O the glorious old schoolmen!'

So this singular couple went through life together, we have no doubt, provoking, by their quaint, queer, old-world ways, many such contemptuous remarks and witty asides from heartless jokers like the man Moore; but, indeed, it is very much so with us all. How prompt we are to turn each other's eccentricities into a mockery. My friend has discovered some little parlor or fireside viciousness in us, and he says to his wife: "What a goose that Wilson makes of himself." Pity that he doesn't see. Meantime that's the very thing I have been remarking to my wife about my friend; and meantime if both of us knew what these things are the relics of, we should touch each other's faults more tenderly. Ah! poor things that we are. We are all sore with many bruises and wounds. The marvel is, that our own tenderness does not make us tender to all others.

Lamb and his sister changed their residence several times in forty years; but as long as he was able well to do so, he clung to the city. Late in life he removed to Enfield, but from its fields he declared he could be "abundantly satisfied by the patches of long waving grass, and the stunted trees, that blacken in the old churchyard nooks which you may yet find bordering on Thames Street." He visited the lakes, and he says: "I have satisfied myself there is such a thing as that which tourists call *the romantic*, which I very much suspected before, they make such a spluttering about them. Still after all, although Skiddaw is a fine creature, I could not live on Skiddaw. If I had not a prospect of seeing Fleet Street I should mope and pine away, I know." Lamb of course, we know, was mistaken

in all this, if he were mistaken, and it were not the humor of the beautiful creature, but he was the very genius of local attachments. He writes to Wordsworth:

"The room where I was born—the furniture which has been before my eyes all my life—a book-case which has followed me about like a faithful dog (only exceeding him in knowledge)—wherever I have moved, old chairs, old tables,—streets, squares, where I have sunned myself—my old school—these are my mistresses. Haven't I enough without your mountains? I do not envy you. I should pity you did not I know that the mind will make friends with any thing. Your sun, and moon, and skies, and hills, and lakes, affect me no more or scarcely come to me in more venerable characters, than as a gilded room, with tapestry and tapers, where I might live with handsome visible objects. I consider the clouds above me but as a roof beautifully painted, but unable to satisfy the mind. So fading upon me from disuse have been the beauties of nature, as they have been confinedly called; so, ever fresh, and green, and warm, are all the inventions of men and assemblies of men in this great city."

What shall we say to this? Some perhaps may treat with contempt the strange fascination of the man. Yes, but believe him not too utterly. It was all true; but there was a deeper truth. The intense humanity of the man was such, that he could not trust himself alone amidst those too infinite and awful solitudes. It was the wise instinct of the soul within tracing its way back to sanity, safety, and health; it was because from the hills there looked out no human countenances on the gentle and affectionate creature; it was because the sense of a silence too awful smote upon him—it was too dreadful a world. When we look upon his face, a startled and a fearful expression seems to cover it; the eyes are sad; and the mouth, even in the picture, reveals the nervous twitching of the lips. Lamb could have well understood those of us who, frightened at our own sensations, are even every day and in the sunlight, terrified as we were when in childhood we cowered beneath the bed-clothes and shrank from the presence we felt to be in the room. There are no essays we know of that seem so to trail after them, as we read, the subtle presence of an undefined and shapeless dread. Have we not all known what it is to fly to company from the dread of our own presence? Lamb sought in the humors of the city a

refuge from his terrified being and disappointed affections. That paper of his on "New-Year's Eve," it gives to us all these impressions, and more. The bells, most solemn of all bells—new year's bells—have wafted his spirit back again to his old being. He reviews his life. He would not have any of those untoward accidents and events of life reversed. Better, he thinks, to have pined away seven of his goldenest years, when he was thrall to the fair hair and fairer eyes of Alice, than to have lost that love. "Better that our family should have missed that legacy which old Dorrell cheated us out of, than be worth two thousand pounds and be without the idea of that specious old rogue." And then follow those strange questions on the being yet to be:

"Any alteration on this earth of mine, in diet or in lodging, puzzles and discomposes me. My household gods plant a terrible fixed foot, and are not rooted up without blood. They do not willingly seek Lavinian shores. A new state of things staggers me.

"Sun, and sky, and breeze, and solitary walks, and summer holidays, and the greenness of fields, and the delicious juices of meats and fishes, and society, and the cheerful glass, and candle-light, and fireside conversations, and innocent vanities, and jests, and *irony itself*—do these things go out of life?

"Can a ghost laugh, or shake its gaunt sides, when you are pleased with him?

"And you, my midnight darlings, my Folios! must I part with the intense delight of having you (huge armfuls) in my embrace? Must knowledge come to me, if it come at all, by some awkward experiment of intuition, and no longer by this familiar process of reading?

"Shall I enjoy friendship there, wanting the smiling indications which point me to them here—the recognizable face—the 'sweet assurance of a look'—?"

Such impressions as these bring also more vividly before our heart those fine and original lines:

"THE OLD FAMILIAR FACES.

"I have had playmates, I have had companions,
In my days of childhood, in my joyful school days;
All, all are gone, the old familiar faces.

"I have been laughing, I have been carousing,
Drinking late, sitting late, with my bosom cronies;
All, all are gone, the old familiar faces.

"I loved a love once, fairest among women!
Closed are her doors on me—I must not see
her,
All, all are gone, the old familiar faces.

"I have a friend—a kinder friend has no man;
Like an ingrate, I left my friend abruptly—
Left him to muse on the old familiar faces.

"Ghost-like, I paced round the haunts of my
childhood!
Earth seemed a desert I was bound to tra-
verse,
Seeking to find the old familiar faces.

"Friend of my bosom! thou more than a bro-
ther!
Why wert not thou born in my father's dwell-
ing?
So might we talk of the old familiar faces.

"How some they have died, and some they
have left me,
And some are taken from me; all are depart-
ed;
All, are gone, the old familiar faces."

So time went on—it was long before
"the old familiar faces" quite faded away
—in the Temple in Islington. Lamb was
the center of a pleasant London circle;
to him, and to his gentle Mary, most be-
loved, came Coleridge, and Wordsworth,
and Hazlitt, and Godwin, and Talfourd,
and Edward Irving, and royal evenings
they had together. The simple, unpre-
tending host, throwing abroad his puns
and his problems—Coleridge pouring
forth his golden monologue—Hazlitt dis-
coursing of art—and Godwin rousing a
universal defiance by his wild political
theories—Talfourd, a young man, then
sitting modestly by, and listening first,
surviving last of all to memorialize the
scene, and then himself fading away the
last. Many years had gone by since the
domestic tragedy. Mary Lamb was
loved and revered as much, perhaps
even more, than her brother. The story
was an indistinct legend, just such as we
see it had somehow floated to the ears of

the poetical lace manufacturer, Moore.
Lamb at last was liberated from the East-
India House on a pension, he then re-
sided at Enfield—among the fields with
the dear old folios, but he sighed for
London, and the hurry and the lights of
the great city. Even in those days the
coach was handy, and he often fled to old
streets, and the old pleasant book-stalls.
We must not linger. He died after only
one or two days' illness, of erysipelas.
His beloved companion, Mary, survived
him many years, still the center of the af-
fection of all the survivors of the old cir-
cle, especially of Talfourd. At last she
died, and went to take up with her bro-
ther, their last lodging in Edmonton
Churchyard.

And then was given to the world the
story, singularly reserved from public
knowledge for nearly fifty years. Then
was more truly understood the reverence
with which Wordsworth and Coleridge
had mentioned the honored name of the
author of *Elia*. Homage to the heart
that quietly took up and fulfilled its great
burden of duty, only lightened by love.
Then was understood more of the singu-
lar humor, the lonely disquiet of the man,
and here it was that for those forty years
he had walked though the world with
the dread of insanity upon his own nature,
and the spectacle of possible insanity dai-
ly by his side. And then that volume
of letters and characterizations, hitherto
withheld, was given to the world, and
the sad side of the humorist's life more
clearly known.

And we have written this paper because
we, for our parts, when we love a man,
strive to make our friends love him too.
We have said little of his frailties; other
and colder pens, of which there are plen-
ty, may do that. Enough for us to have
seen a great simple nature, meeting its
duties quietly, if tearfully performing
them.

From the British Quarterly.

ELIZABETH BARRETT BROWNING.*

At the time of the appearance of *Aurora Leigh*, if we may trust our own memory, there were no two opinions expressed by the leading organs of our periodical literature. All admitted the power and pathos, and even depth of thought, displayed in many an individual passage. All condemned the structure of the story. Some of the events imagined were deemed grossly improbable, others painfully revolting, and the character of Romney, the chief person in the book, was, or might have been, very justly described as a quite impossible compound, inasmuch as he is at one moment represented to us as a hard-headed, practical philanthropist, and the next, as a fanatic, half-mad about some dream of equality. A man of cultivated mind and tastes arranging his marriage in St. James's Church, with the child of a trumper, that he might *symbolize* before all England the blending of the two classes of society, can only be described as a monomaniac. We entirely agree both with the favorable and unfavorable portions of this criticism. With the exception of *Aurora Leigh* herself, the characters do not strike us as lifelike, nor is the story well contrived or the events well selected. But the individual passages, admirable in every respect, that might be extracted from it are numerous; and we may say, in general, that wherever *Aurora Leigh* speaks of herself the poetry rises to the highest excellence.

The great general idea which pervades the poem, and which is from time to time most ably expressed, is that in your anxiety to minister to the material wants of your fellow-creatures, in your most rational desire that all should be well fed, well clothed, well housed, you must not overlook or disparage that mental culture without which, you will find, when you have thoroughly mastered your problem, that even the material

wants of society will never be satisfactorily supplied. Mrs. Browning has here struck a blow, and struck it ably, on one of the most flagrant errors of Socialism. There are men who would stop the cultivation of the refined classes till they had fed all the hungry. It is that cultivation which has induced this great desire to feed all the hungry; put a stop to it, and you check the philanthropic movement altogether. Again, the great thing is to get people to take care of themselves and of their own offspring, and this intelligent and prospective care of themselves will never be extracted out of ignorant people. And again, if the industry and intelligence of society could be successfully addressed to the one subject only of providing for all the primary requisitions of physical well-being, this would result in a most impoverished *human life*. Let the educated philanthropist think for a moment how he would like his own life, and the lives of all his associates, reduced to the level of mere physical enjoyment, and the industry that is to procure it. And therefore the poet is right in vindicating himself and his own poetic work, even though there are still about him open mouths clamoring for food, and cold limbs shivering for raiment. *Aurora Leigh* says:

"A starved man
Exceeds a fat beast; we'll not barter, sir,
The beautiful for barley. And even so,
I hold you will not compass your poor ends
Of barley-feeding and material ease,
Without a poet's individualism
To work your universal. It takes a soul
To move a body: it takes a high-souled man
To move the masses —"

And when Romney comes to himself, he, too, denounces his own error:

"I heard the cries
Too close: I could not hear the angels lift
A fold of rustling air, nor what they said
To help my pity. I beheld the world
As one great famishing, carnivorous mouth—
A huge, deserted, callow, black, bird Thing

**Aurora Leigh*. By ELIZABETH BARRETT BROWNING. London: Chapman & Hall.

With piteous open beak that hurt my heart,
Till down upon the filthy ground I dropt,
And tore the violets up to get the worms.
Worms, worms, was all my cry: an open
mouth,
A gross want, bread to fill it to the lips,
No more! That poor men narrowed their de-
mands
To such an end was virtue, I supposed —
I did not push the case
Up higher, and ponder how it answers, when
The rich take up the same cry for themselves
Professing equally—'an open mouth,'
A gross want, food to fill us, and no more!"

In one point of view, and that the most agreeable, *Aurora Leigh* may be considered as the imaginary autobiography of a young poetess, in which she reveals her aspirations, her despondencies; vindicates for herself and for her sex the right to stand apart, lyre in hand, an independent and earnest artist; and also touchingly intimates that such standing apart is a trying attitude to all hearts, and not least to the feminine. Aurora is the child of an Englishman who marries and settles in Italy. At an early age she is orphaned of both her parents, is brought to England, and put under the care of a maiden aunt. The aunt is thus described:

"She had lived, we'll say,
A harmless life, she called a virtuous life,
A quiet life, which was not life at all,
(But *that*, she had not lived enough to know,)
Between the vicar and the county squires,
The lord-lieutenant looking down sometimes
From the empyreal, and in the abyss
The apothecary looked on once a year,
To prove the soundness of their humility.
The poor-club exercised her Christian gifts
Of knitting stockings, stitching petticoats,
Because we are of one flesh, after all,
And need one flannel, (with a proper sense
Of difference in the quality.) She had lived
A sort of cage-bird life, born in a cage,
Accounting that to leap from perch to perch
Was act and joy enough for any bird.
Dear Heaven, how silly are the birds that live
In thickets, and eat berries!"

"I, alas!
A wild bird, scarcely fledged, was brought to
her cage,
And she was there to meet me. Very kind.
Bring the clean water; give out the fresh seed."

The wild bird, if it was to develop itself in such a cage, was likely to lead a miserable life enough, and to vex beyond measure the methodical spirit of her guardian. But it happens, fortunately for Aurora, that she is able, from the rare universality of her talents, to succeed with

ease in all the tasks and feminine accomplishments prescribed for her, and also in secret hours to carry on her own peculiar culture of mind. She steals many an hour in the morning before the household is astir for unrestrained communion with nature, and she stealthily abstracts, from a neglected package of her late father's, many a book of a deeper cast of thought than those generally recommended to the accomplished young lady.

"But I could not hide
My quickening inner life from those at watch.
They saw a light at a window now and then
They had not set there. Who had set it there?
My father's sister started when she caught
My soul agaze in my eyes. She could not say
I had no business with a sort of soul,
But plainly she objected."

A pleasant incident introduces us to cousin Romney, and leads to a very spirited conversation between the two. Aurora has reached her twentieth birthday—she rises with the dawn.

"I was glad that day.
The June was in me with its multitudes
Of nightingales all singing in the dark.
I felt so young, so strong, so sure of God!
I bounded forth
At early morning—would not wait so long
As even to snatch my bonnet by the strings,
But, brushing a green trail across the lawn
With my gown in the dew, took will and way
Among the acacias of the strubberies
To fly my fancies in the open air
And keep my birthday, till my aunt awoke
To stop good dreams. Meanwhile I murmur-
ed on
As honeyed bees keep humming to themselves."

She thinks how worthiest poets have oftentimes not been crowned till death had made their brows insensible to the laurel-leaf—had been crowned only in the marble bust—and she determines, in sport, to crown herself by anticipation that day, while the young forehead could still feel the most pleasurable wreath. She plucks a branch of ivy, and having wreathed it in her hair, she turns and faces—her cousin Romney! He had come early to congratulate her on her birthday, and had followed her to this retreat. He finds her playing at this poet's coronation.

His own mind is full of grave, practical objects, and his heart at this moment is full also of one tender project. The incident immediately gives rise to an animated dialogue. Romney wants his cousin to be-

come his wife, and share in all his philanthropic labors. Aurora has her own life to live, has her own poet's aspirations, refuses to be absorbed in the existence of another. All our sympathies are with the young girl. Romney loves his cousin, and has noble objects of his own; but he lacks the generosity or justice to acknowledge that she also has her own separate nobility of soul, and an intellectual career of her own. He should have let her sing her song in peace—he would have found, in the end, the companion and fellow-laborer he sought for. Bent as he was on assimilating her mind in all points to his own, we see that they must inevitably part; the philanthropist to his charity-schools and public-baths, the poet to her meditations and the music of her verse. Romney is made to say—for the sake, we presume, of the indignant answer—that we want *the best* only in art, and that woman is intellectually too weak for the highest, whether in art or philosophy, or in any of the walks of genius. Therefore, when he proceeds to ask for help and fellowship, and the sustaining love of a wife, he receives this merited retort:

“What help? I asked,
You'd scorn my help—as Nature's self, you say,

Has scorned to put her music in my mouth,
Because a woman. Do you now turn round
And ask for what a woman can not give?

‘Now,’ I said, ‘my God,
Be witness ’twixt us two!’ and with the word
Meseemed I floated into sudden light
Above his stature—‘am I proved too weak
To stand alone, yet strong enough to bear
Such leaners on my shoulder? Poor to think,
Yet rich enough to sympathize with thought?’

‘You forget too much
That every creature, female as the male,
Stands single in responsible act and thought,
As also in birth and death. Whoever says
To a loyal woman, Love and work with me,
Will get fair answer, if the work and love,
Being good themselves, are good for her—the best

She was born for. Women of a softer mind,
Surprised by men when scarcely awake to life,
Will sometimes only hear the first word, love,
And catch up with it any kind of work,
Indifferent, so that dear love go with it!
I do not blame such women, though, for love,
They pick much oakum. *Me* your work
Is not the best for. Ah! you force me, sir,
To be over-bold in speaking of myself—
I too have my vocations—work to do
That heaven and earth have set me.”

So the suit of Romney is inevitably re-

jected. The aunt dies; Aurora refusing the generous offers of her cousin, who would have still shared at least his fortune with her, goes forth alone and poor, resolved to pursue her poet's vocation. The poet succeeds better than the philanthropist, who contrives, by his irrational theories and schemes, to rouse the suspicions and animosity of the very class he is laboring to serve. We need not tell the absurd story of his intended marriage with Marian, nor how his country-house, which he has converted into some sort of *phalanstère*, is burnt down by the mob, and he himself loses his sight in the scene of uproar and outrage that ensues. Aurora writes her book in her solitude, and succeeds. She is, in a measure, famous. But the work done, the solitude remains, and then comes the sad reaction, which many have felt, but none so touchingly revealed.

“Is this all? All that's done? and all that's gained?

If this then be success, 'tis dismal
Than any failure.

O my God, my God!

O supreme Artist! who, as sole return
For all the cosmic wonder of thy work,
Demandest of us just a word—a name,

‘My Father!’—thou hast knowledge, only thou.

How dreary 'tis for women to sit still
On winter nights, by solitary fires,
And hear the nations praising them far off,
Too far! ay, praising our quick sense of love,
Our very heart of passionate womanhood,
Which could not beat so in the verse without
Being present also in the unkind lips,
And eyes undried because there's none to ask
The reason they grew moist.

‘To sit alone

And think, for comfort, how, that very night,
Affianced lovers, leaning face to face,
With sweet half-listenings for each other's
breath,

Are reading haply from some page of ours—

‘To have our books

Appraised by love, associated with love,
While *we* sit loveless! Is it hard, you think?
At least, 'tis mournful. Fame, indeed, 'twas
said,

Means simply love. It was a man said that.
And then there's love and love; the love of
all,

(To risk in turn a woman's paradox,
Is but a small thing to the love of one.
You bid a hungry child be satisfied
With a heritage of many cornfields; nay,
He says he's hungry—he would rather have
That little barley-cake you keep from him
While reckoning up his harvests.”

The story ends, as our readers are aware, in the union of Romney and Aurora, who, however they may have misunderstood, really loved each other. Each acknowledges his error, or rather each has learned the truth that the other only had seen before. Romney admits that his hasty scheme of mechanical organization had failed—he has learned that the better social life he was so anxious to inaugurate, “must develop from within.” And Aurora, dissatisfied with her own success, has been brought to confess that “Art is much, but love is more.” There is great beauty and tenderness in the last conversation between them; but it is too long, and they talk *at cross purposes*, which is always wearisome to the reader, unless it is skillfully and briefly managed. Aurora not only supposes, during the greater part of the conversation, that Romney is married to Lady Waldemar, but she talks to him by the hour together without discovering that he is blind!

We must not forget to mention that the authoress of *Aurora Leigh* has the merit of some originality in the *form* of her poem. She has converted the modern novel into a sort of domestic epic. In this she has already had imitators. The *Lucille* of Owen Meredith is also a novel in verse. We had stories in verse of most kinds—stories of knights and of peasants. Crabbe has given us the annals of the poor. But cotemporary life as displayed in the fashionable novel, with its lords and ladies, and sprightly dialogue, its plot and its intrigue, had not previously been carried into verse. Whether the invention is to be applauded or not, we may venture to say that *Aurora Leigh* will be the first of a very numerous class.

Though not successful, as we think, in the plot of her story or the invention of her incidents, it will be admitted that she has imitated very skillfully in her blank verse the conversational tone of society—as witness the play of wit, or the sprightliness that passes for wit, amongst the fashionable ladies who are waiting the arrival of the bride in St. James's Church. And yet again we can not help noting that there are two long letters, one from Lady Waldemar to Aurora, and one from Aurora in answer to it, which we venture to say are not like any thing which two English ladies, under the same circumstances, would have written. We can not, however, afford space by lengthened

quotations to justify the impression they made on us. At all events, we quite approve of her design to represent the very age in which she is living, its manners and its thoughts. She says very justly:

“I do distrust the poet who discerns
No character or glory in his times;
But trundles back his soul five hundred years,
Past moat and drawbridge, into castle-courts.”

As we have already intimated, Mrs. Browning is capable occasionally of a wild metaphorical style—a mere jungle of rank imagery, that would excite our wonder if we did not know that the genius of even the greatest poets will sometimes stumble on such faults. The same ardent temperament that elevates a writer to the sublime will sometimes betray him into nonsense androdomontade. We have no wish to pick out instances of this fault; if we were challenged, we could make no very scanty collection. Let the following passage suffice to show what can be done in this hazy metaphorical style. It holds a conspicuous place, being the opening sentence of the Fifth Book:

“Aurora Leigh, be humble. Shall I hope
To speak my poems in mysterious tune
With man and nature—with the lava-nymph
That trickles from successive galaxies,
Still drop by drop adown the finger of God,
In still new worlds?”

Robert Montgomery never perpetrated any thing worse than this. But instead of selecting individual passages that are censurable in point of taste, it may be more instructive to notice a peculiarity in the very tissue of the thought itself, which sometimes mars an otherwise excellent passage. It is this: A writer very familiar with certain poetic conceptions, or mere imaginations, will introduce these side by side with actual details taken from real life; so that a description shall be made up partly of what is most true to nature, and partly of what is most false and fictitious. We can only explain ourselves by an instance. Here is one in the first page of *Aurora Leigh*. It will be observed that the first part of our quotation is a mere figment of the imagination, borrowed, it seems, from Wordsworth, and *treated as a fact*; the second part is a beautiful touch of truthful description. They are unwisely blended together:

"I, writing thus, am still what men call young.
I have not so far left the coasts of life
To travel inward, *that I can not hear*
That murmur of the outer Infinite
Which unweaned babies smile at in their sleep,
When wondered at for smiling ; not so far,
But still I catch my mother at her post
Beside the nursery-door, with finger up :
'Hush, hush; here's too much noise!' while her
sweet eyes
Leap forward, taking part against her word
In the child's riot."

Nothing can be more real and touching than the last part of this quotation ; it is taken from the very life. Why is it found in juxtaposition with the silly fiction, that babies are especially familiar with the In-

finite ? The writer remembered the mother's form at the nursery-door ; she certainly did not remember having very clear conceptions of the Infinite at that time. We say to all young poets, when you undertake to describe or tell the truth about any thing, adhere to nature. Do not pretend to see what you never saw, or to think what you never *could* have thought. If you want to say how old you are, do not intimate your youth by telling us that you can still hear that murmur of the outer Infinite which sets babies smiling ! Do not make up your descriptions half of truths of nature and half of figments of the poets.

From Fraser's Magazine.

CONCERNING THE SORROWS OF CHILDHOOD.

ONCE upon a time, Mr. Smith, who is seven feet in height, went out for a walk with Mr. Brown, whose stature is three feet and a half. It was in a distant age, in which people were different from what they are now ; and in which events occurred such as do not usually occur in these days. Smith and Brown, having traversed various paths, and having passed several griffins, serpents, and mail-clad knights, came at length to a certain river. It was needful that they should cross it ; and the idea was suggested that they should cross it by wading. They proceeded, accordingly, to wade across ; and both arrived safely at the farther side. The water was exactly four feet deep ; not an inch more or less. On reaching the other bank of the river, Mr. Brown said : "This is awful work ; it is no joke crossing a river like *that*. I was nearly drowned." "Nonsense," replied Mr. Smith, "why make a fuss about crossing a shallow stream like this ? Why, the water is only four feet deep ; *that* is nothing at all !" "Nothing to you, perhaps," was the response of Mr. Brown, "but a serious matter for me. You observe," he went on, "that water four feet

deep is just six inches over my head. The river may be shallow to you, but it is deep to me." Mr. Smith, like many other individuals of great physical bulk and strength, had an intellect not much adapted for comprehending subtle and difficult thoughts. He took up the ground that things are what they are in themselves, and was incapable of grasping the idea that greatness and littleness, depth and shallowness, are relative things. An altercation ensued, which resulted in threats on the part of Smith that he would throw Brown into the river ; and a coolness was occasioned between the friends which subsisted for several days.

The acute mind of the reader of this page, will perceive that Mr. Smith was in error ; and that the principle asserted by Mr. Brown was a sound and true one. It is unquestionable that a thing which is little to one man may be great to another man. And it is just as really and certainly great in this latter case as any thing ever can be. And yet, many people do a thing exactly analogous to what was done by Smith. They insist that the water which is shallow to them shall be held to be absolutely shallow ; and that if

smaller men declare that it is deep to themselves, these smaller men shall be regarded as weak, fanciful, and mistaken. Many people, as they look back upon the sorrows of their own childhood, or as they look round upon the sorrows of existing childhood, think that these sorrows are or were very light and insignificant, and their causes very small. These people do this, because to them, as they are now *big people*, (to use the expressive phrase of childhood,) these sorrows would be light if they should befall. But though these sorrows may seem light to us now, and their causes small, it is only as water four feet in depth was shallow to the tall Mr. Smith. The same water was very deep to the man whose stature was three feet and a half; and the peril was as great to him as could have been caused by eight feet depth of water to the man seven feet high. The little cause of trouble was great to the little child. The little heart was as full of grief, and fear, and bewilderment, as it could hold. Yes, I stand up against the common belief that childhood is our happiest time. And whenever I hear grown-up people say that it is so, I think of Mr. Smith, and the water four feet deep. I have always, in my heart, rebelled against that common delusion. I recall it, as if it were yesterday, a day which I have left behind me more than twenty years. I see a large hall, the hall of a certain educational institution, which helped to make the present writer what he is. It is the day of the distribution of the prizes. The hall is crowded with little boys, and with the relations and friends of the little boys. And the chief magistrate of that ancient town, in all the pomp of civic majesty, has distributed the prizes. It is neither here nor there what honors were borne off by me; though I remember well that *that day* was the proudest that ever had come in my short life. But I see the face and hear the voice of the kind-hearted old dignitary, who has now been for many years in his grave. And I recall especially one sentence he said, as he made a few eloquent remarks at the close of the day's proceedings. "Ah! boys," said he, "I can tell you this is the happiest time of all your life!" "Little you know about the matter," was my inward reply. I knew that our worries, fears, and sorrows, were just as great as those of any one else. The sorrows of child-

hood and boyhood are not sorrows of that complicated and perplexing nature which sit heavy on the heart in after years; but in relation to the little hearts that have to bear them, they are very overwhelming for the time. As has been said, great and little are quite relative terms. A weight which is not absolutely heavy, is heavy to a weak person. We think an industrious flea draws a vast weight if it draw the eighth part of an ounce. And I believe that the sorrows of childhood task the endurance of childhood as severely as those of manhood do the endurance of the man. Yes, we look back now, and we smile at them, and at the anguish they occasioned, because they would be no great matter to us now. Yet in all this we err just as Mr. Smith the tall man erred, in that discussion with the little man, Mr. Brown. Those early sorrows were great things then. Very bitter grief may be in a very little heart. "The sports of childhood," we know from Goldsmith, "satisfy the child." The sorrows of childhood overwhelm the poor little thing. I think a sympathetic reader would hardly read, without a tear as well as a smile, an incident in the early life of Patrick Fraser Tytler, recorded in his biography. When five years old, he got hold of the gun of an elder brother, and broke the spring of its lock. What anguish the little boy must have endured! what a crushing sense of having caused an irremediable evil, before he sat down and printed in great letters the following epistle to his brother, the owner of the gun: "O Jamie! think no more of guns, for the mainspring of that is broken, and *my heart is broken!*" Doubtless the poor little fellow fancied that for all the remainder of his life he never could feel as he had felt before he touched the unlucky weapon. And looking back over many years, most of us can remember a child crushed and overwhelmed by some trouble which it thought could never be got over; and we can feel for our early self as though sympathizing with another being.

What I wish in this essay is, that we should look away along the path we have come in life; and that we should see that though many cares and troubles may now press upon us, still we may well be content. I speak to ordinary people, whose lot has been an ordinary lot. I know there are exceptional cases; but I firmly

believe that as for most of us, we never have seen better days than these. No doubt, in the retrospect of early youth, we seem to see a time when the summer was brighter, the flowers sweeter, the snowy days of winter more cheerful, than we ever find them now. But, in sober sense, we know that it is all an illusion. It is only as the man traveling over the burning desert sees sparkling water and shady trees where he knows there is nothing but arid sand.

I dare say you know that one of the acutest of living men has maintained that it is foolish to grieve over past suffering. He says, truly enough in one sense, that the suffering which is past is as truly non-existent as the suffering which has never been at all; that, in fact, past suffering is now nothing, and is entitled to no more consideration than that to which nothing is entitled. No doubt, when bodily pain has ceased, it is all over: we do not feel it any more. And you have probably observed that the impression left by bodily pain passes very quickly away. The sleepless night, or the night of torment from toothache, which seemed such a distressing reality while it was dragging over, looks a very shadowy thing the next forenoon. But it may be doubted whether you will ever so far succeed in overcoming the fancies and weaknesses of humanity, as to get people to cease to feel that past sufferings and sorrows are a great part of their present life. The remembrance of our past life is a great part of our present life. And, indeed, the greater part of human suffering consists in its anticipation and in its recollection. It is so by the inevitable law of our being. It is because we are rational creatures that it is so. We can not help looking forward to that which is coming, and looking back on that which is past; nor can we suppress, as we do so, an emotion corresponding to the perception. There is not the least use in telling a little boy who knows that he is to have a tooth pulled out to-morrow, that it is absurd in him to make himself unhappy to-night through the anticipation of it. You may show with irrefragable force of reason, that the pain will last only for the two or three seconds during which the tooth is being wrenched from its place; and that it will be time enough to vex himself about the pain when he has actually to feel it. But the little fellow will pass

but an unhappy night in the dismal prospect; and by the time the cold iron lays hold of the tooth, he will have endured by anticipation a vast deal more suffering than the suffering of the actual operation. It is so with bigger people, looking forward to greater trials. And it serves no end whatever to prove that all this ought not to be. The question as to the emotions turned off in the workings of the human mind, is one of fact. It is not how the machine ought to work, but how the machine does work. And as with the anticipation of suffering so with its retrospect. The great grief which is past, even though its consequences no longer directly press upon us, casts its shadow over after-years. There are, indeed, some hardships and trials upon which it is possible that we may look back with satisfaction. The contrast with them enhances the enjoyment of better days. But these trials, it seems to me, must be such as come through the direct intervention of Providence; and they must be clear of the elements of human cruelty or injustice. I do not believe that a man who was a weakly and timid boy can ever look back with pleasure upon the ill-usage of the brutal bully of his school-days; or upon the injustice of his teacher in cheating him out of some well-earned prize. There are kinds of great suffering which can never be thought of without present suffering, so long as human nature continues what it is. And I believe that past sorrows are a great reality in our present life, and exert a great influence over our present life, whether for good or ill. As you may see in the trembling knees of some poor horse, in its drooping head, and spiritless paces, that it was over-wrought when young; so if the human soul were a thing that could be seen, you might discern the scars where the iron entered into it long ago; you might trace not merely the enduring remembrance, but the enduring results, of the incapacity and dishonesty of teachers, the heartlessness of companions, and the idiotic folly and cruelty of parents. No, it will not do to tell us that past sufferings have ceased to exist, while their remembrance continues so vivid, and their results so great. You are not done with the bitter frosts of last winter, though it be summer now, if your blighted evergreens remain as their result and memorial. And the man who was brought up

in an unhappy home in childhood, will never feel that *that* unhappy home has ceased to be a present reality, if he knows that its whole discipline fostered in him a spirit of distrust in his kind, which is not yet entirely got over; and made him set himself to the work of life with a heart somewhat soured, and prematurely old. The past is a great reality. We are here the living embodiment of all we have seen and felt through all our life; fashioned into our present form by millions of little touches; and by none with a more real result than the hours of sorrow we have known.

One great cause of the suffering of boyhood, is the bullying of bigger boys at school. I know nothing practically of the English system of *fagging* at public schools, but I am not prepared to join out and out in the cry against it. I see many evils inherent in the system; but I see that various advantages may result from it too. To organize a recognized subordination of lesser boys to bigger ones, must unquestionably tend to cut the ground from under the feet of the unrecognized, unauthorized, private bully. But I know that at large schools where there is no fagging, bullying on the part of youthful tyrants prevails to a great degree. Human nature is beyond doubt fallen. The systematic cruelty of a school-bully to a little boy is proof enough of *that*, and presents one of the very hatefulest phases of human character. It is worthy of notice that, as a general rule, the higher you ascend in the social scale among boys, the less of bullying there is to be found. Something of the chivalrous and the magnanimous comes out in the case of the sons of gentlemen: it is only among such that you will ever find a boy, not personally interested in the matter, standing up against the bully in the interest of right and justice. I have watched a big boy thrashing a little one, in the presence of half a dozen other big boys, not one of whom interfered on behalf of the oppressed little fellow. You may be sure I did not watch the transaction longer than was necessary to ascertain whether there was a grain of generosity in the hulking boors; and you may be sure, too, that *that* thrashing of the little boy was, to the big bully, one of the most unfortunate transactions in which he had engaged in his bestial and blackguard, though brief life. I took care of *that*, you

may rely on it. And I favored the bully's companions with my sentiments as to their conduct, with an energy of statement that made them sneak off, looking very like whipped spaniels. My friendly reader, let us never fail to stop a bully, when we can. And we very often can. Among the writer's possessions might be found, by the curious inspector, several black kid-gloves, no longer fit for use, though apparently not very much worn. Surveying these integuments minutely, you would find the thumb of the right hand rent away, beyond the possibility of mending. Whence the phenomenon? It comes of the writer's determined habit of stopping the bully. Walking along the street or the country road, I occasionally see a big blackguard fellow thrashing a boy much less than himself. I am well aware that some prudent individuals would pass by on the other side, possibly addressing an admonition to the big blackguard. But I approve Thomson's statement, that "prudence to baseness verges still;" and I follow a different course. Suddenly approaching the blackguard, by a rapid movement, generally quite unforeseen by him, I take him by the arm, and occasionally (let me confess) by the neck, and shake him till his teeth rattle. This being done with a new glove on the right hand, will generally unfit that glove for further use. For the bully must be taken with a gripe so firm and sudden, as shall serve to paralyze his nervous system for the time. And never once have I found the bully fail to prove a whimpering coward. The punishment is well deserved, of course; and it is a terribly severe one in ordinary cases. It is a serious thing, in the estimation both of the bully and his companions, that he should have so behaved as to have drawn on himself the notice of a passer-by, and especially of a parson. The bully is instantly cowed; and by a few words to any of his school associates who may be near, you can render him unenviably conspicuous among them for a week or two. I never permit bullying to pass unchecked; and so long as my strength and life remain I never will. I trust you never will. If you could stand coolly by, and see the cruelty you could check, or the wrong you could right, and move no finger to do it, you are not the reader I want, nor the human being I choose to know. I hold the cautious and sagacious man who can look on at an act of bullying without

stopping it and punishing it, as a worse and more despicable animal than the bully himself.

Of course you must interfere with judgment; and you must follow up your interference with firmness. Don't intermeddle, like Don Quixote, in such a manner as to make things worse. It is only in the case of continued and systematic cruelty that it is worth while to work temporary aggravation, to the end of ultimate and entire relief. And sometimes that is unavoidable. You remember how, when Moses made his application to Pharaoh for release to the Hebrews, the first result was the aggravation of their burdens. The supply of straw was cut off, and the tale of bricks was to remain the same as before. It could not be helped. And though things came right at last, the immediate consequence was that the Hebrews turned in bitterness on their intending deliverer, and charged their aggravated sufferings upon him. Now, my friend, if you set yourself to the discomfiture of a bully, see you do it effectually. If needful, follow up your first shaking. Find out his master, find out his parents; let the fellow see distinctly that your interference is no passing fancy. Make him understand that you are thoroughly determined that his bullying shall cease. And carry out your determination unflinchingly.

I frequently see the boys of a certain large public school, which is attended by boys of the better class; and judging from their cheerful and happy aspect, I judge that bullying among boys of that condition is becoming rare. Still I doubt not there yet are poor little nervous fellows whose school life is embittered by it. I don't think any one could read the poet Cowper's account of how he was bullied at school, without feeling his blood a good deal stirred, if not entirely boiling. If I knew of such a case within a good many miles, I should stop it; though I never wore a glove again that was not split across the right palm.

But, doubtless, the greatest cause of the sorrows of childhood is the mismanagement and cruelty of parents. You will find many parents who make favorites of some of their children to the neglect of others; an error and a sin which is bitterly felt by the children who are held down, and which can never by possibility

result in good to any party concerned. And there are parents who deliberately lay themselves out to torment their children. There are two classes of parents who are the most inexorably cruel and malignant; it is hard to say which class excels, but it is certain that both classes exceed all ordinary mortals. One is the utterly blackguard; the parents about whom there is no good nor pretense of good. The other is the wrong-headedly conscientious and religious; probably, after all, there is greater rancor and malice about these last than about any other. These act upon a system of unnatural repression, and systematized weeding out of all enjoyment from life. These are the people whose very crowning act of hatred and malice toward any one, is to pray for him, or to threaten to pray for him. These are the people who, if their children complain of their bare and joyless life, say that such complaints indicate a wicked heart, or Satanic possession; and have recourse to farther persecution to bring about a happier frame of mind. Yes; the wrong-headed and wrong-hearted religionist is probably the very worst type of man or woman on whom the sun looks down. And oh! how sad to think of the fashion in which stupid, conceited, malicious blockheads set up their own worst passions as the fruits of the working of the Blessed Spirit; and caricature, to the lasting injury of many a young heart, the pure and kindly religion of the Blessed Redeemer! These are the folk who inflict systematic and ingenious torment on their children; and, unhappily, a very contemptible parent can inflict much suffering on a sensitive child. But of this there is more to be said hereafter; and before going on to it, let us think of another evil influence, which darkens and embitters the early years of many.

It is the cruelty, injustice, and incompetence of many schoolmasters. I know a young man of twenty-eight, who told me that when at school, in a certain large city in Peru, (let us say,) he never went into his class any day without feeling quite sick with nervous terror. The entire class of boys lived in that state of cowed submission to a vulgar, stupid, bullying, flogging barbarian. If it prevents the manners from becoming brutal, diligently to study the ingenuous arts, it appears certain that diligently to teach them sometimes leads to a directly con-

trary result. The bullying schoolmaster has now become an almost extinct animal; but it is not very long since the spirit of Mr. Squeers was to be found, in its worst manifestations, far beyond the precincts of Dotheboys Hall. You would find fellows who showed a grim delight in walking down a class with a cane in their hand, enjoying the evident fear they occasioned as they swung it about, occasionally coming down with a savage whack on some poor fellow who was doing nothing whatsoever. These brutal teachers would flog, and that till compelled to cease by pure exhaustion, not merely for moral offenses, which possibly deserve it, (though I do not believe any one was ever made better by flogging,) but for making a mistake in saying a lesson, which the poor boy had done his best to prepare, and which was driven out of his head by the fearful aspect of the truculent blackguard with his cane and his hoarse voice. And how indignant, in after-years, many a boy of the last generation must have been, to find that this tyrant of his childhood was in truth a humbug, a liar, a fool, and a sneak! Yet how that miserable piece of humanity was feared! How they watched his eye, and laughed at the old idiot's wretched jokes! I have several friends, who have told me such stories of their schooldays, that I used to wonder that they did not, after they became men, return to the schoolboy spot that they might heartily shake their preceptor of other years, or even kick him!

If there be a thing to be wondered at, it is that the human race is not much worse than it is. It has not a fair chance. I am not thinking now of an original defect in the material provided: I am thinking only of the kind of handling it gets. I am thinking of the amount of judgment which may be found in most parents and in most teachers; and of the degree of honesty which may be found in many. I suppose there is no doubt that the accursed system of the cheap Yorkshire schools was by no means caricatured by Mr. Dickens in *Nicholas Nickleby*. I believe that starvation and brutality were the rule at these institutions. And I do not think it says much for the manliness of Yorkshire men and of Yorkshire clergymen, that these foul dens of misery and wickedness were suffered to exist so long,

without a voice raised to let the world know of them. I venture to think that if Dr. Guthrie, of Edinburgh, had lived any where near Greta Bridge, Mr. Squeers and his compeers would have attained a notoriety that would have stopped their trade. I can not imagine how any one, with the spirit of a man in him, could sleep and wake within sight of one of these schools, without lifting a hand or a voice to stop what was going on there. But without supposing these extreme cases, I can remember what I have myself seen of the incompetence and injustice of teachers. I burn with indignation yet as I think of a malignant blockhead who once taught me for a few months. I have been at various schools, and I spent six years at one venerable university, (where my instructors were wise and worthy;) and I am now so old, that I may say, without any great exhibition of vanity, that I have always kept well up among my school and college companions; but that blockhead kept me steadily at the bottom of my class, and kept a frightful dunce at the top of it, by his peculiar system. I have observed (let me say) that masters and professors who are stupid themselves have a great preference for stupid fellows, and like to keep down clever ones. A professor who was himself a dunce at college, and who has been jobbed into his chair, being quite unfit for it, has a fellow-feeling for other dunces. He is at home with them, you see; and is not afraid that they see through him and despise him. The injustice of the malignant blockhead who was my early instructor, and who succeeded in making several months of my boyhood unhappy enough, was taken up and imitated by several lesser blockheads among the boys. I remember particularly one sneaking wretch, who was occasionally set to mark down on a slate the names of such boys as talked in school; such boys being punished by being turned to the bottom of their class. I remember how that sneaking wretch used always to mark my name down, though I kept perfectly silent: and how he put my name last on the list, that I might have to begin the lesson the very lowest in my form. The sneaking wretch was bigger than me, so I could not thrash him; and any representation I made to the malignant blockhead of a schoolmaster was entirely

disregarded. I can not think, but with considerable ferocity, that probably there are many schools to-day in Britain containing a master who has taken an unreasonable dislike to some poor boy, and who lays himself out to make that poor boy unhappy. And I know that such may be the case where a boy is neither bad nor stupid. And if the school be one attended by a good many boys of the lower grade, there are sure to be several sneaky boys among them who will devote themselves to tormenting the one whom the master hates and torments.

It can not be denied that there is a generous and magnanimous tone about the boys of a school attended exclusively by the children of the better classes, which is unknown among the children of uncultivated boors. I have observed that if you offer a prize to the cleverest and most industrious boy of a certain form in a school of the upper class, and propose to let the prize be decided by the votes of the boys themselves, you will almost invariably find it fairly given: that is, given to the boy who deserves it best. If you explain, in a frank, manly way, to the little fellows, that in asking each for whom he votes, you are asking each to say, upon his honor, whom he thinks the cleverest and most diligent boy in the form, nineteen boys out of twenty will answer honestly. But I have witnessed the signal failure of such an appeal to the honor of the bumpkins of a country school. I was once present at the examination of such a school, and remarked carefully how the boys acquitted themselves. After the examination was over, the master proposed, very absurdly, to let the boys of each class vote the prize for that particular class. The voting began. A class of about twenty was called up: I explained to the boys what they were to do. I told them they were not to vote for the boy they liked best; but were to tell me faithfully who had done best in the class lessons. I then asked the first boy in the line for whom he gave his vote. To my mortification, instead of voting for a little fellow who had done incomparably best at the examination, he gave his vote for a big, sullen-looking blockhead, who had done conspicuously ill. I asked the next boy, and received the same answer. So all round the class: all voted for the big sullen-looking blockhead. One or two did

not give their votes quite promptly; and I could discern a threatening glance cast at them by the big sullen-looking blockhead, and an ominous clenching of the blockhead's right fist. I went round the class without remark; and the blockhead made sure of the prize. Of course this would not do. The blockhead could not be suffered to get the prize; and it was expedient that he should be made to remember the occasion on which he had sought to tamper with justice and right. Addressing the blockhead, amid the dead silence of the school, I said: "You shall not get the prize, because I can judge for myself that you don't deserve it. I can see that you are the stupidest boy in the class; and I have seen reason, during this voting, to believe that you are the worst. You have tried to bully these boys into voting for you. Their votes go for nothing; for their voting for you proves either that they are so stupid as to think you deserve the prize, or so dishonest as to say they think so when they don't think so." Then I inducted the blockhead into a seat where I could see him well, and proceeded to take the votes over again. I explained to the boys once more what they had to do; and explained that any boy would be telling a lie who voted the prize unfairly. I also told them that I knew who deserved the prize, and that they knew it too, and that they had better vote fairly. Then, instead of saying to each boy, For whom do you vote? I said to each: Tell me who did best in the class during these months past? Each boy in reply named the boy who really deserved the prize; and the little fellow got it. I need not record the means I adopted to prevent the sullen-looking blockhead from carrying out his purpose of thrashing the little fellow. It may suffice to say that the means were thoroughly effectual; and that the blockhead was very meek and tractable for about six weeks after that memorable day.

But, after all, the great cause of the sorrows of childhood is unquestionably the mismanagement of parents. You hear a great deal about parents who spoil their children by excessive kindness; but I venture to think that a greater number of children are spoiled by stupidity and cruelty on the part of their parents. You may find parents who, having attained from a humble origin, have attained to wealth; and who, instead of being glad

to think that their children are better off than they themselves were, exhibit a diabolical jealousy of their children. You will find such wretched beings insisting that their children shall go through needless trials and mortifications, because they themselves went through the like. Why, I do not hesitate to say that one of the thoughts which would most powerfully lead a worthy man to value material prosperity, would be the thought that his boys would have a fairer and happier start in life than he had; and would be saved the many difficulties on which he still looks back with pain. You will find parents, especially parents of the pharisaical and wrongheaded religious class, who seem to hold it a sacred duty to make the little things unhappy; who systematically endeavor to render life as bare, ugly, and wretched a thing as possible; who never praise their children when they do right, but punish them with great severity when they do wrong; who seem to hate to see their children lively or cheerful in their presence; who thoroughly repel all sympathy or confidence on the part of their children, and then mention as a proof that their children are possessed by the devil, that their children always like to get away from them; who rejoice to cut off any little enjoyment; rigidly carrying out into practice the fundamental principle of their creed, which undoubtedly is, that "nobody should ever please himself, neither should any body ever please any body else, because in either case he is sure to displease God." No doubt Mr. Buckle, in his second volume, caricatured and misrepresented the religion of Scotland as a country; but he did not in the least degree caricature or misrepresent the religion of some people in Scotland. The great doctrine, underlying all other doctrines, in the creed of a few unfortunate beings, is that God is spitefully angry to see his creatures happy; and of course the practical lesson follows, that they are following the best example when they are spitefully angry to see their children happy.

Then a great trouble, always pressing heavily on many a little mind, is that it is overtasked with lessons. You still see here and there idiotic parents striving to make infant phenomena of their children, and recording with much pride how their children could read and write at an un-

naturally early age. Such parents are fools—not necessarily malicious fools, but fools beyond question. The great use to which the first six or seven years of life should be given, is the laying the foundation of a healthful constitution in body and mind, and the instilling of those first principles of duty and religion which do not need to be taught out of any books. Even if you do not permanently injure the young brain and mind by prematurely overtasking them—even if you do not permanently blight the bodily health, and break the mind's cheerful spring—you gain nothing. Your child at fourteen years old is not a bit further advanced in his education than a child who began his, years after him; and the entire result of your stupid driving has been to overcloud some days which should have been among the happiest of his life. It is a woful sight to me to see the little forehead corrugated with mental effort, though the effort be to do no more than master the multiplication-table. It was a sad story I lately heard of a little boy repeating his Latin lesson over and over again in the delirium of the fever of which he died, and saying piteously, that indeed he could not do it better. I don't like to see a little face looking unnaturally anxious and earnest about a horrible task of spelling; and even when children pass that stage, and grow up into schoolboys who can read *Thucydides* and write Greek iambics, it is not wise in parents to stimulate a clever boy's anxiety to hold the first place in his class. That anxiety is strong enough already; it needs rather to be repressed. It is bad enough even at college to work on late into the night; but at school it ought not to be suffered for one moment. If a lad takes his place in his class every day in a state of nervous tremor, he may be in the way to get his gold medal, indeed; but he is in the way to shatter his constitution for life.

We all know, of course, that children are subjected to worse things than these. I think of little things, early set to hard work, to add a little to their parents' scanty store. Yet if it be only work, they bear it cheerfully. This afternoon, I was walking through a certain quiet street, when I saw a little child standing with a basket at a door. The little man looked at various passers-by; and I am happy to say that when he saw me, he asked me to ring the door-bell for him. For though he had been sent with that

basket, which was not a light one, he could not reach up to the bell. I asked him how old he was. "Five years past," said the child, quite cheerfully and independently. God help you, poor little man, I thought; the doom of toil has fallen early upon you? If you visit much among the poor, few things will touch you more than the unnatural sagacity and trustworthiness of children who are little more than babies. You will find these little things left in a bare room by themselves; the eldest six years old; while the poor mother is out at her work. And the eldest will reply to your questions in a way that will astonish you, till you get accustomed to such things. I think that almost as heart-rending a sight as you will readily see, is the misery of a little thing who has spilt in the street the milk she was sent to fetch, or broken a jug; and who is sitting in despair beside the spilt milk or the broken fragments. Good Samaritan, never pass by such a sight; bring out your two-pence; set things completely right; a small matter and a kind word will cheer and comfort an overwhelmed heart. That child has a truculent step-mother or (alas!) mother at home, who would punish that mishap as nothing should be punished but the gravest moral delinquency. And lower down the scale than this, it is awful to see want, cold, hunger, rags, in a little child. I have seen the wee thing, shuffling along the pavement in great men's shoes, holding up its sorry tatters with its hands; and casting on the passengers a look so eager yet so hopeless as went to one's heart. Let us thank God that there is one large city in the empire where you need never see such a sight; and where, if you do, you know how to relieve it effectually; and let us bless the name and the labors and the genius of Thomas Guthrie! It is a sad thing to see the toys of such little children as I can think of. What curious things they are able to seek amusement in! I have known a brass button at the end of a string a much-prized possession. I have seen a grave little boy standing by a broken chair in a bare garret, solemnly arranging and rearranging two pins upon the broken chair. A machine much employed by poor children in country places, is a slate tied to a bit of string. This being drawn along the road, constitutes a cart; and you may find it attended by the admiration of the entire young

population of three or four cottages, standing in the moorland miles from any neighbor.

You will not unfrequently find parents who, if they can not keep back their children from some little treat, will try to infuse a sting into it, so as to prevent the children from enjoying it. They will impress on their children that they must be very wicked to care so much about going out to some children's party; or they will insist that their children should return home at some preposterously early hour, so as to lose the best part of the fun, and so as to appear ridiculous in the eyes of their young companions. You will find this amiable tendency in people intrusted with the care of older children. I have heard of a man whose nephew lived with him, and lived a very cheerless life. When the season came round at which the lad hoped to be allowed to go and visit his parents, he ventured, after much hesitation, to hint this to his uncle. Of course the uncle felt that it was quite right the lad should go, but he grudged him the chance of the little enjoyment; and the happy thought struck him that he might let the lad go, and at the same time make the poor fellow uncomfortable in going. Accordingly he conveyed his permission to the lad to go by roaring out in a savage manner: "*Begone!*" This made the poor lad feel as if it were his duty to stay, and as if it were very wicked in him to wish to go; and though he ultimately went, he enjoyed his visit with only half a heart. There are parents and guardians who take great pains to make their children think themselves very bad; to make the little things grow up in the endurance of the pangs of a bad conscience. For conscience, in children, is a quite artificial thing; you may dictate to it what it is to say. And parents, often injudicious, sometimes malignant, not seldom apply hard names to their children, which sink down into the little heart and memory far more deeply than they think. If a child can not eat fat, you may instill into him that it is because he is so wicked; and he will believe you for a while. A favorite weapon in the hands of some parents, who have devoted themselves diligently to making their children miserable, is to frequently predict to the children the remorse which they (the children) will feel, after they (the parents) are

dead. In such cases, it would be difficult to specify the precise things which the children are to feel remorseful about. It must just be, generally, because they were so wicked, and because they did not sufficiently believe the infallibility and impeccability of their ancestors. I am reminded of the woman mentioned by Sam Weller, whose husband disappeared. The woman had been a fearful termagant; the husband, a very inoffensive man. After his disappearance, the woman issued an advertisement, assuring him that if he returned he would be fully forgiven; which, as Mr. Weller justly remarked, was very generous, seeing he had never done any thing at all.

Yes, the conscience of children is an artificial and a sensitive thing. The other day a friend of mine, who is one of the kindest of parents and the most amiable of men, told me what happened in his house on a certain *Fast-day*. A Scotch Fast-day, you may remember, is the institution which so completely puzzled Mr. Buckle. That historian fancied that *to fast* means in Scotland to abstain from food. Had Mr. Buckle known any thing whatever about Scotland, he would have known that a Scotch fast-day means a week-day on which people go to church; but on which (especially in the dwellings of the clergy) there is a better dinner than usual. I never knew man or woman in all my life who on a fast-day refrained from eating. And quite right too. The growth of common-sense has gradually abolished literal fasting. In a warm Oriental climate, abstinence from food may give the mind the preëminence over the body, and so leave the mind better fitted for religious duties. In our country, literal fasting would have just the contrary effect; it would give the body the mastery over the soul; it would make a man so physically uncomfortable, that he could not attend with profit to his religious duties at all. I am aware, Anglican reader, of the defects of my countrymen; but commend me to the average Scotchman for sound practical sense. But to return. These fast-days are by many people observed as rigorously as the Scotch Sunday. On the forenoon of such a day, my friend's little child, three years old, came to him in much distress. She said, as one who had a fearful sin to confess, "I have been playing with my toys this morning;" and then began to cry as if her lit-

tle heart would break. I know some stupid parents who would have strongly encouraged this needless sensitiveness; and who would thus have made their child unhappy at the time, and prepared the way for an indignant bursting of these artificial trammels when the child had grown up to maturity. But my friend was not of that stamp. He comforted the little thing, and told her that though it might be as well not to play with her toys on a Fast-day, what she had done was nothing to cry about. I think, my reader, that even if you were a Scotch minister, you would appear with considerable confidence before your Judge, if you had never done worse than failed to observe a Scotch Fast-day with the covenanting austerity.

But when one looks back and looks round, and tries to reckon up the sorrows of childhood arising from parental folly, one feels that the task is endless. There are parents who will not suffer their children to go to the little feasts which children occasionally have, either on that wicked principle that all enjoyment is sinful, or because the children have recently committed some small offense, which is to be thus punished. There are parents who take pleasure in informing strangers, in their children's presence, about their children's faults, to the extreme bitterness of the children's hearts. There are parents who will not allow their children to be taught dancing, regarding dancing as sinful. The result is, that the children are awkward, and unlike other children; and when they are suffered to spend an evening among a number of companions who have all learned dancing, they suffer a keen mortification which older people ought to be able to understand. Then you will find parents, possessing ample means, who will not dress their children like others, but send them out in very shabby garments. Few things cause a more painful sense of humiliation to a child. It is a sad sight to see a little fellow hiding round the corner when some one passes who is likely to recognize him; afraid to go through the decent streets, and creeping out of sight by back-ways. We have all seen *that*. We have all sympathized heartily with the reduced widow who has it not in her power to dress her boy better; and we have all felt lively indignation at the

parents who had the power to attire their children becomingly, but whose heartless parsimony made the little things go about under a constant sense of painful degradation.

An extremely wicked way of punishing children is by shutting them up in a dark place. Darkness is naturally fearful to human beings, and the stupid ghost stories of many nurses make it especially fearful to a child. It is a stupid and wicked thing to, send a child with a message out into a dark night. I do not remember passing through a greater trial in my youth, than once walking three miles alone (it was not going a message) in the dark, along a road thickly shaded with trees. I was a little fellow; but I got over the distance in half an hour. Part of the way was along the wall of a churchyard, one of those ghastly, weedy, neglected, accursed-looking spots, where stupidity has done what it can to add circumstances of disgust and horror to the Christian's long sleep. No body ever supposed that this walk was a trial to a boy of twelve years old; so little are the thoughts of children understood. And children are reticent; I am telling now about that dismal walk for the very first time. And in the illnesses of childhood, children sometimes get very close and real views of death. I remember, when I was nine years old, how every evening when I lay down to sleep, I used for about a year to picture myself lying dead, till I felt as though the coffin were closing round me. I used to read at that period, with a curious feeling of fascination, Blair's poem, *The Grave*. But I never dreamed of telling any body about these thoughts. I believe that thoughtful children keep most of their thoughts to themselves; and in respect of the things of which they think most, are as profoundly alone as the Ancient Mariner in the Pacific. I have heard of a parent, an important member of a very strait sect of the Pharisees, whose child, when dying, begged to be buried not in a certain foul, old, hideous churchyard, but in a certain cheerful cemetery. This request the poor little creature made with all the energy of terror and despair. But the strait Pharisee refused the dying request; and pointed out with polemical bitterness to the child that he must be very wicked indeed to care at such a time where he was to be buried, or

what might be done with his body after death. How I should enjoy the spectacle of that unnatural, heartless, stupid wretch tarred and feathered! The dying child was caring for a thing about which Shakespeare cared; and it was not in mere human weakness, but "by faith," that "Joseph, when he was dying, gave commandment concerning his bones."

I believe that real depression of spirits, usually the sad heritage of after-years, is often felt in very early youth. It sometimes comes of the child's belief that he must be very bad, because he is so frequently told that he is so. It sometimes comes of the child's fears, early felt, as to what is to become of him. His parents, possibly, with the good sense and kind feeling which distinguish various parents, have taken pains to drive it into the child that if his father should die, he will certainly starve, and may very probably have to become a wandering beggar. And these sayings have sunk deep into the little heart. I remember how a friend told me that his constant wonder, when he was twelve or thirteen years old, was *this*: If life was such a burden already, and so miserable to look back upon, how could he ever bear it when he had grown older?

But now, my reader, I am going to stop. I have a great deal more marked down to say; but the subject is growing so thoroughly distressing to me as I go on, that I shall go on no farther. It would make me sour and wretched for the next week, if I were to state and illustrate the varied sorrows of childhood of which I intended yet to speak: and if I were to talk out my heart to you about the people who cause these, I fear my character for good nature would be gone with you forever. "This genial writer," as the newspapers call me, would show but little geniality: I am aware, indeed, that I have already been writing in a style which, to say the least, is snappish. So I shall say nothing of the first death that comes in the family in our childish days: its hurry, its confusion, its awe-struck mystery, its wonderfully vivid recalling of the words and looks of the dead. Nor of the terrible trial to a little child of being sent away from home to school: the heart-sickness, and the weary counting of the weeks and days before the time of returning home again. But

let me say to every reader who has it in his power directly or indirectly to do so: Oh! do what you can to make children happy: oh! seek to give that great enduring blessing of a happy youth! Whatever after-life may prove, let there be something bright to look back upon in the horizon of our early time! You may sour the human spirit forever by cruelty and injustice in youth. There is a past suffering which exalts and purifies; but *this* leaves only an evil result; it darkens all the world, and all our views of it. Let us try to make every little child happy. The most selfish parent might try to please a little child, if it were only to see the fresh expression of unblunted feeling, and a liveliness of pleasurable emotion which in after-years we shall never know. I do not believe a great English barrister is so happy when he has the Great Seal committed to him, as two little and rather ragged urchins whom I saw this very afternoon. I was walking along a country road, and overtook them. They were about five years old. I walked slower, and talked to them for a few minutes, and found that they were good boys, and went to school every day. Then I produced two coins of the copper coinage of Britain: one a large penny of ancient days, another a small penny of the present age. "There is a penny for each of you," I said with some solemnity; "one is large, you see, and the other small; but they are each worth exactly the same. Go and get something good." I wish you had seen them go off! It is a cheap and easy thing to make a little heart happy. May this hand never write another essay if it

ever willfully miss the chance of doing so! It is all quite right in after-years to be careworn and sad. We understand these matters ourselves. Let others bear the burden which we ourselves bear, and which is doubtless good for us. But the poor little things! I can enter into the feeling of a kind-hearted man who told me that he never could look at a number of little children but the tears came into his eyes. How much these young creatures have to bear yet! I think you can, as you look at them, in some degree understand and sympathize with the Redeemer, who, when he "saw a great multitude was moved with compassion toward them!" Ah! you smooth little face, (you may think,) I know what years will make of you, if they find you in this world. And you, light little heart, will know your weight of care!

And I remember, as I write these concluding lines, who they were that the Best and Kindest this world ever saw liked to have near Him; and what the reason was he gave why He felt most in his element when they were by his side. He wished to have little children round him, and would not have them chidden away; and this because there was something about them that reminded him of the place from which he came. He liked the little faces and the little voices—He to whom the wisest are in understanding as children. And oftentimes, I believe, these little ones still do his work. Oftentimes, I believe, when the worn Man is led to Him in childlike confidence, it is by the hand of a little child.

A. K. H. B.

From Colburn's New Monthly.

THE LIFE-BOAT OF MERCY.*

THERE could scarcely be a more appropriate name given to a Life-boat than that of the "Boat of Mercy," nor could the poetic abilities of the long-tried and well-known Mr. Nicholas Michell have been devoted to a better cause than pleading the claims of the Royal National Life-Boat Institution, by portraying one scene out of many that occur almost daily on our iron-bound coast, and which (while depicting most others) came as a Cornishman under his own particular observation. The moment, too, has been most opportune, just as all England was grieving at the records of the most numerous and lamentable disasters that have visited our seafaring population and ship-owners for many a long year. It is a sad, sad scene that of helpless shipwreck: death in its wildest, sternest form! What a beautiful picture is that painted by Nicholas Michell of the mighty ocean in its tranquillity, and then again of "night at sea:"

"No garish beams, but all around
A crystal plain without a bound,
Awing us like eternity."

But how fearful is the change when that same ocean is presented to us in vivid and tumultuous verse, lashed by the furious storm, and bearing all before it to destruction:

"O'er foam-topped, mountain billows bounding,
The tempest loud his trumpet sounding,
Like a wild race-horse to the goal,
A passion that defies control,
The vessel shoreward sweeps;
The wrathful seas her sides are lashing,
The breakers rolling, maddening, flashing,
Then o'er the crags in thunder dashing,
But still that course she keeps."

Then come the tearful, heart-rending parting: "What all life's kisses to our last?" and the "mother's love more strong than

death!" But at that supreme moment, when all is given up as lost, and grim and ghastly death is treading the deck in anticipatory triumph, lo! the Boat of Mercy arrives:

"'Tis done—despite the winds, the roll
Of that storm-maddened, fearful sea,
Bravery hath snatched each shivering soul,
O greedy death! from thee.
Not yet the wife shall press her pillow
Beneath the cold and dreary billow;
The mother and her bud of bloom
Go down embracing into gloom:
Earth yet its joys, its sweets will give,
O rapture! still to live—to live!

"They reach the shore where waves in thunder,
Are rolling, rolling—and the foam
Is mounting high, while caverns under
The beetling cliffs, the mermaid's home,
Rebellow to the frantic blast,
But safe that shore they tread at last.
See! beaming eyes to heaven they raise,
Pouring their souls in thanks and praise;
Then the rough seamen's hands they wring,
And some, o'erpowered by bursting feeling,
Their arms around them wildly fling,
While tears down many a cheek are
stealing,
They bless them for their noble deed,
True saviours sent in hour of need;
If God rewards high acts below,
Their souls shall every rapture know.

"But now spectators on the shore
Shout their applause; the heart-raised
cheer
Is heard above the ocean's roar;
'The Life boat!' thunders far and near.
That bark of slender, fragile form,
Battles triumphant with the storm,
Lives when the ship no more can ride,
But founders in her strength and pride;
The dove sent forth, rejoiced to bear
The branch of hope to pale despair;
The rainbow in the cloud of gloom,
Deliverer from the threatening tomb;
Her generous mission is to save,
The guardian angel of the wave."

Laying aside its merits as a poetic and at once a truthful and touching portraiture of scenes which all should treasure up and learn to sympathize with,

* *The Wreck of the Homeward-Bound*; or, *The Boat of Mercy*. By NICHOLAS MICHELL, Author of *Ruins of Many Lands, Pleasure*, etc. With an Illustration. London: William Tegg. 1862.

if they have not done so before, Mr. Nicholas Michell's poem is printed for the benefit of that most admirable and praiseworthy society, the National Life-Boat Institution, and is therefore doubly worthy of popularity. Too much publicity can not be given to an institution supported by voluntary contributions, which has one hundred and twenty life-boats stationed on the coasts of Great Britain and Ireland, and yet wants many more, and which has saved thousands of lives since its commencement. We sincerely hope that Mr. Michell's heart-stirring and touching appeal will be the means of doing much good.

From Colburn's New Monthly.

ASCENTS OF THE VOLCANO ORIZAVA.

THE LOFTIEST OF THE ANDES IN MEXICO.

THE workings of Nature in her profoundest laboratories are, it has been justly observed, concealed from us. It is true that science teaches us that the metallic bases of the earths, which constitute the solid crust of the globe, are combustible when exposed to the action of air or water, and their oxyds give birth to quartz or silice, to feldspar and clay, to lime, and to other rocky bases, and it is therefore presumed that these substances may exist in their metallic form in the center of the earth; but this is as yet conjectural; nor does such a theory precisely account for all the phenomena of volcanoes, or the production of certain simple combustible bodies, as sulphur, fluor, or phthore, and others; possibly, however, because their metallic bases have not yet been eliminated. But, granting all this, still the real fact itself, and the manner in which volcanic action is actually brought about, have not yet been unfolded to us, although now so readily conjectured at.

The results of volcanic action are, however, every where present. The mighty forces of subterranean agency are to be seen in the inclined strata and disturbed disposition of the sedimentary rock formations almost all over the earth's surface, and elsewhere in the heaving up of islands or mountains from the abyss, or the crumbling them to atoms, or the emission

of smoke, flames, cinders, and lava from their ignivivorous mouths, or in the vents established by their own forces between the interior and the exterior.

In Mexico vast revolutions have been effected by volcanic agency; the cyclopean forges are, indeed, for the most part cold, but the subterranean forces are not every where extinct, and occasionally burst forth here or there, committing the most extensive ravages, or convulsing the earth with terrific spasms.

In the south a succession of volcanoes, passing from Oajaca through Chiapas, are connected with the burning mountains of Guatemala. Cempoaltepec, one of the loftiest points of the Cordilleras of Oajaca, is a volcanic cone; the frequent earthquakes on the plateaus of Oajaca always appear at the same time as those of Guatemala, so that a complete assemblage of volcanic agencies would appear to exist there.

The chief range of the Mexican volcanoes lies between the nineteenth and twentieth degrees of north latitude, and may be traced from the Atlantic to the South Sea, across the whole country. Near the gulf-shores, about sixty miles from Vera Cruz, the isolated mountain-range of Tustla, or San Martin, rears itself above the plain. It is evident that the whole range must have swollen up like a vast bladder, and subsequently

have been cleft by repeated eruptions and fallings in. The highest point is about three thousand feet above the sea; several craters are visible, and also a round, very deep lake of fresh water, on a little plateau on the south-west side, indicating a sunken hollow. The last recorded eruption of this volcano took place in 1789. It was preceded by an earthquake and subterranean thunder. A vast cloud of ashes was cast up to an incredible height, and carried off by the current of air that sets in from east to west. The ashes lay several inches deep in the streets and on the roofs of houses in towns situated twenty miles to the west, and even on the opposite side of the mountain, eight miles off, in the village of Perote, every thing was covered with ashes. Since then the volcano has been at rest, but sounds as of distant thunder have been heard in the depths. The natives then say, "The Tustla growls!" The dwellers in the Tustla itself, however, aver that the sounds come from the direction of the Peak of Orizava, and call it the thunder of Orizava. It is hence deduced that a subterranean communication exists between the two mountains, a circumstance rendered all the more probable, not only by several volcanic summits rising up on the line, but also by the fact that earthquakes are felt most distinctly in the same direction.

Orizava, the loftiest mountain of the eastern chain, exhibits at the first glance its volcanic origin; it forms a majestic cone, whilst on the magnificent snowy peak, somewhat to the east of the highest ridge, the vast crater is distinctly seen. An eruption that lasted almost without interruption for twenty years took place fifty years after the arrival of the Spaniards in Mexico, in 1589, but it does not appear to have been accompanied by a discharge of lava. The opinion which was entertained in the following centuries that the ascent of the mountain was impossible, is supposed by some to be derived from the long duration of this eruption.

In 1848 some North-American officers were said to have attained the summit, but Sartorius, in his excellent work on *Mexico and the Mexicans*, says that no one in the country believed it. Three years later, on the twenty-sixth of March, 1851, a party of eighteen young men undertook the ascent. They passed the

night at the point where vegetation ceases, and next day they reached the ice, where the perilous part of their enterprise began, by sunrise. After a short struggle, one half of the party, which comprised various nationalities, (two Frenchmen, one Englishman, one American, one Belgian, and thirteen Mexicans,) gave up the attempt and returned exhausted. Six of them succeeded in reaching a ridge of rocks, about half-way up to the snowy cone, on the north side, whence the ascent took place, and which can be perceived from the sea. Here they rested, enjoyed the prospect, and then returned.

One of the Frenchmen, however—Alexandre Doignon by name—reached the highest point, after a further fatiguing ascent of five hours and a half. He described the day as being perfectly clear, the air pure and transparent, and not the slightest cloud obscuring the lowlands. To the east the blue surface of the Atlantic and Vera Cruz were distinctly seen; the whole of the coast and the bright prairies; the towns of Orizava and Cordova, St. Juan, Huatusco and Jalapa, the indented mountain-chain, stretching north and south, and the table-lands, with their numerous villages and lakes, bounded by the snowy range of Popocatepetl, constituted an immense landscape that extended before the astonished gaze of the intrepid traveler like a gigantic drawing.

The crater he described as lying something to the south-east of the highest point, and as being some hundred feet lower down. He also found at its edge a flag-staff, six feet long, bearing the date 1848, and part of a North-American flag, affording proof that the honor of having made the first ascent is due to the Americans. Only two of Doignon's companions, Majorus, a Belgian, and Contreras, a Mexican, reached the edge of the crater, and they were completely exhausted; the rarity of the atmosphere rendered respiration exceedingly difficult, and blood flowing from their mouths, they were soon forced to return. Severe headache and extremely painful inflammation of the eyes, lasted long after the descent. The elevation of the peak was estimated upon this occasion by boiling-point thermometer, to be eighteen thousand one hundred and seventy-eight feet.

The inhabitants of the little town of St. Andres Chalohicomula, on the west side

of the volcano, having doubted the truth of Doignon's story, he was incited to venture on a second ascent a week subsequent to the first, or on the fourth of April, 1851. He was accompanied on this occasion by a number of Mexicans, who, however, gave up the undertaking the moment they reached the snow. This time the ascent was attended with great risk. Fresh snow had fallen and covered the former track, the chasms and fissures were concealed by it, and our adventurer sank in at almost every step, carrying with him a flagstaff, as also a large flag, which he had wound about his body like a scarf.

Having attained the pile of rocks that jut out of the snow in safety, he here unfortunately missed his way, and getting more to the eastward, or on the left side, than the first time, he found his progress impeded by an enormous chasm twenty-five feet wide and four hundred deep, and consisting within of terrace-like masses of ice. This chasm extended about half a league in a semi-circle. Some fragile bridges of ice affording the only means of passage, Doignon ventured over these, but even then he met with and had to cross several other dangerous fissures, in doing which he had to encounter the greatest dangers. When just nearing the summit, a steep wall of ice interposed itself between him and the accomplishment of his hopes. Calling forth all his remaining energies, exhausted, trembling, every moment in peril of being precipitated into the abyss, he at length surmounted this last obstacle, and was able then to rest for a time.

At first our adventurer was shrouded in a dense fog, which, however, soon fell below the snowy cone. To the north-east he perceived a succession of isolated rocks, several hundred feet high, rising like a ruined wall. The snow extended to the edge of the crater, within which, on the north side, were deep fissures reaching to the top. A rock at the edge of the crater, fifteen feet thick, is described as being quite hot, as was the soil round the same, and even the ground is said to have trembled slightly at this spot, but it was more probably the spectator. There was no snow, only sand and volcanic ashes. A powerful smell of sulphur is also described as proving the ceaseless activity of the fire within, and both the interior of the crater and the highest westerly point of the mountain (which we shall find Baron de Müller justly designating as the upper

walls of the crater) were covered with sulphur, the soil being also heated. Several rocks were also glazed on the surface, (vitreous lava, or obsidian,) but within they were whitish, like burnt lime. The crater itself had an oval shape, with two inlets to the south and east. (This is also corroborated by Baron Müller.) The diameter at the top was estimated by Doignon at about two thousand metres, and the circumference six thousand five hundred. (Müller's estimate coincides closely with this, being six thousand metres.)

This great crater presented a terrific abyss, with almost perpendicular sides, furrowed by black burnt fissures. "We look down," says the narrator, "into a fearful gulf, which on the east side may be about five hundred and fifty feet deep. In this gulf enormous black pyramidal rocks are seen, dividing into three openings, two smaller ones to the south, the larger one to the east. On the north side, about one hundred and fifty feet from the edge of the crater, a gigantic black cleft rocky pyramid rises to the height of more than four hundred feet. From the large opening to the east, volumes of steam, strongly impregnated with sulphur, constantly rise as from a flue. A low rumbling is heard in the depths, causing a feeling of anxiety in the lifeless wilderness." The sides of the crater to the west and south-west were less steep, and covered with snow.

Doignon had planted his flag on the loftiest pinnacle, but a brisk ice-wind made him fear that it had been overthrown. He therefore once more returned to the summit, and believed, for a time, that he should be forced to pass the night at the foot of the warm rocks; the wind falling, however, he commenced his descent at four o'clock in the afternoon. He had to clamber downward amidst wondrous perils, having been actually reduced in places to feel his way from the darkness in which he was enveloped. Happily at eight o'clock he joined his companions at the foot of the glaciers. His great exertions in the snow-fields were succeeded by a night of much pain, and by a recurrence of the inflammation of the eyes which was severer than the first time. In a few days he was recovered, and the gallant young man was honored with a splendid banquet, and even valuable presents were made him by the inhabitants of St. Andres Chalchicomula, who were cured of

their incredulity by seeing the banner waving above the peak.

This, it is to be observed, was in March and April, 1851. A still more recent ascent has been effected at a different season of the year, in the month of August, 1856, by Baron Müller, who had only arrived that month at Vera Cruz from an exploring journey in Canada and the United States.

The learned traveler issued forth from the small town of Orizava to effect the ascent on the morning of the thirtieth of August, accompanied by Mr. A., a Swedish gentleman, Malmsjö, and a graduate of the University of Berlin.

The party, provided with all that was necessary for their undertaking, took the direction of the volcano across narrow but rapid streams and barancas—the terrible chasms or ravines that intersect the uplands—and which they found difficult to cross even with the aid of the well-trained Mexican horses. They arrived the first day at the hacienda, or farm of Toquila, near San Juan Coscomatepes, where they passed the night, and laid in a further stock of provisions. Beyond this they reached the Indian village of Alpatlahua, where they obtained native guides, who led them by rocky pathways along the beds of torrents and over rocky crests, but still amidst a luxuriant vegetation.

The plain, says the Baron, was now far below us, the lightning flashed and the thunder rolled beneath our feet, for we had attained an elevation of two thousand six hundred and sixty metres. At this elevation vegetation had changed its aspect, creepers and climbers had disappeared, but the orchidiceæ still clung to the trees. After passing the night in a rancho, or shepherd's hut, they made an early start on the morning of the first of September, and soon reached the region of pines. They passed on their way numerous crosses raised to the memory of travelers who had fallen victims to banditti or to the climate. It is the custom with wayfarers to scatter flowers over the tombs of these unfortunate persons. By nine in the morning they arrived at the rancho of Grecale, three thousand three hundred metres above the level of the sea. The road kept increasing in difficulty, and was now intersected by horrible barancas.

"At ten and a half," says Baron Müller, we reached the end of the baranca of Trinchera, and the sources of the Rio de

la Soledad. Not far from thence was the rancho of Jamapa, the aim of that day's excursion: it consisted of a few wooden huts, the proprietor of which, a Mexican in rags, received us with the most polished dignity, placing every thing at our disposal—that is to say, a hut which served as a barn, and which he hospitably announced to us to be an holstery. We, however, refreshed ourselves at this station, washing down our meals with latalan, (a strong Spanish brandy,) and sleeping soundly. The next day, on our departure, we saw the colossal head of the volcano glittering with the reflected light of the sun in an azure blue sky. Soon vegetation ceased entirely, we were surrounded by nothing but rocks of gneiss, of trachyte, and of hornblende, with volcanic sand and cinders."

At eleven the travelers arrived at the base of the peak properly so called. The view to the westward is described as being magnificent; the Popocatepetl and the Malinche towered out of the lofty upland of Mexico, whose surface seemed to be dotted with lakes that glittered like so many precious stones. To the east the landscape was buried in fog and cloud. A sharp wind gave additional intensity to the cold, and the Indian guides were dispatched into a forest below to bring up wood to construct a hut and make a fire. They did this with great alacrity. A lofty rock of granite served as a gable; another of less dimensions filled up one of the sides; the opposite corner was supported by a stake made firm with stones, for the soil was too hard frozen to permit of a hole being made in it; the cross-beams were made fast with ropes, and the whole was covered with straw matting.

Although a little too airy, this rustic mansion protected the travelers from the excess of cold. But the rarefied atmosphere rendered their breathing frequent and irregular, and all were more or less feverish, and suffering from headache. The elevation they had attained already exceeded that of Mont Blanc. The thermometer indicated ten degrees below zero—a temperature which contrasted singularly with the twenty-nine degrees of heat experienced a short time previously in the terra caliente. The hut was surrounded at night-time by wolves attracted by the odor of good things.

Next morning the party made their last

preparations for the ascent of the peak. Laden with provisions and with astronomical and meteorological instruments, provided with thick green leaves of fern, and armed with Alpine staves and hooks, they started with a slow and steady step at seven in the morning. Their way lay at first over loose soil, with here and there a patch of snow, after which they had to climb over rocky boulders and huge detached stones, amid deep crevices and ravines. Arrived at this point, one of the guides declared that he would go no further, so they had to leave him behind, and to carry the instruments themselves.

After two hours of the most painful toil, they had attained an elevation of only three hundred and sixty yards above whence they had started, and had reached the line of perpetual snow. At this point the second guide gave in, and the travelers had to carry his share of the burden by turns. The ascent was so abrupt that they did not advance more than eight or ten feet in twenty-five paces, and after each such exertion they had to rest themselves awhile. The brilliant light reflected from the snow added to their discomfort by dazzling their eyes and affecting the sight. This snow was covered with a thin coating of ice, which often gave way beneath their feet.

"We were nearing the crater," Baron Müller relates, "when I heard Malmsjö call out from behind. I turned round, and saw that he had sunk into the snow up to his armpits; and at the very moment one of my legs broke through the ice deep into the snow below. I, however, succeeded in getting to Malmsjö, when he showed me the hole he had fallen into. I shall never forget the impression made upon me by the sight. I felt a cold perspiration pervade my whole body. We were, in fact, standing over a vast abyss, from which we were separated by only a thin coating of snow and ice. It was in vain that the eyes sought for indications of rock or soil, columns of ice and crystals filled the depths beyond, and the abyss, instead of being dark, was splendidly lit up by some subterranean or subnival source of light—probably the sun's rays that fell upon the snow. Fear paralyzed our every movement. After having raised ourselves up with the utmost caution, we spread out our arms, at all risks, over the snow, and then we let ourselves slide slowly down. After having thus descended some hun-

dred paces, we arrived at a spot that appeared to be firm. There we held a deliberation, for it was necessary to determine by which side it was best to turn the abyss in order to reach the crater." But suddenly a strong wind arose, and bore up thick clouds, which so enveloped them that they could not see one another at a distance of three paces. It was impossible to ascend any further in such a snow-storm, so that they were obliged to retrace their steps without guides or provisions, for in saving themselves from the abyss they had unfortunately let the provision-basket fall.

They arrived at four in the afternoon at the extemporized hut where they had spent the previous evening. This night was still more painful and distressing than the previous one. The determination of blood to the head injected their eyes till they were quite red, and an inflammation, attended with the most severe pain, manifested itself in the instance of Sonntag and Malmsjö, and what was their horror, when daylight came, to find that they were perfectly blind! Their eyelids were glued by a kind of earthy humor, and even when that was removed, they could scarcely discern the light of day. As a culminating point of their misfortunes, the provisions were exhausted, while an Indian added to their discomfort by announcing that a numerous band of robbers were awaiting them in the woody zone below.

All these untoward circumstances combined, induced Baron Müller to attempt the passage to the west, toward San Andres Chalchicomula. As the Orizava approaches nearest to the high upland of Mexico on that side, the travelers would have two thousand metres less distance to go to reach the table-land. They had to lead the blind across a most difficult country covered with rolled stones and volcanic cinders, till, after an hour's toil, they reached the limits of vegetation, and soon afterward the shelter of a fine pine-forest.

The farther they got down the denser the forest became, but the silence of the dark and gloomy recesses was broken by innumerable parrots that find sustenance in the fir-cones. Now and then an opening presented itself which allowed the green pastures that flank the blue mountains of the Mexican table-land to be discerned. A cross raised over a mound

of fresh earth bore a record upon it of the death of between twenty and thirty individuals at that spot. It was a melancholy relic of the last pronunciamiento. Long after civil war has been brought to a conclusion in this unfortunate country, bands of partisans continue to infest the roads and commit robberies under the shelter of politics.

After having traversed a cultivated plain enlivened here and there by ranchos, our travelers reached the small town of San Andres Chalchicomula the same evening. Sundry washings, performed near an aqueduct, upon the eyes of the sufferers, had enabled them to see a little better.

From information which they obtained at this place, it appeared that the ascent of the mountain was much more practicable from the south, and Baron Müller was determined to try again forthwith. But, notwithstanding a few days' repose, M. Malmjö and M. Sonntag were too ill to join him; two other persons, however—Mr. Campbell, an inspector of telegraphs, and M. de la Huerta—volunteered to accompany him.

The Citaltepetl, "the mountain of the star," as the Indians call the Orizaba, or, as some have it, Orizaba, was enveloped in dense clouds the morning of the eighth of September, 1856, Baron Müller relates, when he bade farewell to his friends, and left San Andres Chalchicomula amidst the good wishes of the inhabitants.

"Two courageous and experienced Indians, whose services had been obtained for me by the prefect, had been sent on beforehand in order to lay in provisions of wood and water, and deposit the same in a grotto that was situated on the south side of the mountain, just below the limits of perpetual snow, and where we were to spend the first night. My party was composed of Mr. Campbell, M. de la Huerta, and two attendants, all four on horseback; and we had, beside, a mule laden with provisions.

"Starting with spirit, we soon attained a table-land, the surface of which was diversified by a great number of volcanic hills of little elevation, and beyond which were fine forests of pine and fir; but our way was not more obstructed by fallen trees than it was by occasional deep ravines and the necessity there was for following the most impracticable and dangerous pathways.

"At about five in the evening, as we

were thus toiling along the side of a baranca, the horse that bore M. Huerta lost its footing, and fell. He was near me, and as he fell on a small, smooth rock, I expected to see him hurled into the depths of the abyss below; but the Mexican horses are extraordinarily sagacious, and the poor brute extricated itself and its rider from their perilous position with marvelous promptitude and address. Without even excepting the Arab horses, I know of no better steeds for traveling purposes than the Mexican. They are also well made, of good shape, intelligent, and exceedingly faithful and obedient."

It was late at night before our travelers reached the grotto. It was not dark, however, the firmament being lit up by a tropical moon.

"Our little party," says the Baron, "presented at that moment so picturesque a group, that it really ravished me. Although I had been disillusionized of romance by my numerous travels, the spectacle of that evening was well adapted to arouse the dreams of the most capricious fancy. A clear fire blazed away at the entrance of the grotto and lit up the interior, the projections of rock casting dark and strange shadows into the semi-obscurity. Drops of water fell like diamonds from the roof on the floor. The Indians, and other attendants with their Mexican costumes, were busy with the horses, that were left ready saddled, and we ourselves, with our traveling accouterments and glittering arms, rather resembled bandits than peaceful travelers.

"Without the grotto, the spectacle of nature had a majesty about it that produced a deep impression upon our minds. The moon shone mildly to the south-east, and its light penetrated through the dark pines; to the west, the gigantic volcano, almost veiled in fog, reflected the rays of the moon, and it appeared even more majestic than ever by that mysterious light."

The preparations for the ascent were commenced by the earliest dawn on the ensuing day, and, after an hour's toil, they reached the last limits of vegetation, and then the zone of perpetual snow. The horses were so thoroughly done up, that they had to be sent back to the grotto.

"The atmosphere," says Baron Müller, "was so rarefied that our poor steeds could scarcely inhale a sufficient quanti-

ty of oxygen, and their breathing was as deep and difficult, as if they had galloped a long stage. The men were also sensible of the same influence, but birds seem to be indifferent to it, for here, at an elevation of five thousand five hundred yards, I saw two falcons playing in the air full seven hundred yards above me."

The travelers arrived without any incidents at the fields of snow, out of which pieces of rock jutted here and there, and helped them much in their scramble upward. By noon they had attained a little platform covered with snow. This point, which presented a smooth surface of a few feet square, was the last where there was any possibility of reposing themselves before reaching the volcano, so they accordingly rested here a few moments to refresh themselves.

"Below us," says the Baron, "in a south-westerly direction, we could see a red-hot crater surrounded by serrated and perpendicular rocks. I estimated the height of its most elevated peak, called the Cerro del Mono, at four thousand three hundred metres. In the direction of the Valle de Lopus, where we passed the night, was the Sierra Negra, which was not covered with snow, although it must exceed four thousand eight hundred feet in elevation. Hence its name, the 'Black Mountain.'

"The ascent was recommenced after a quarter of an hour's rest, but the depths of the snow presented extraordinary obstacles to our progress. We went up to our knees at every step, and as the slope generally exceeded an angle of forty-five degrees, we had to crawl on all-fours. The chief difficulty was to breathe, and we could not get over twenty or twenty-five paces without rest. Spite of a veil and of green spectacles, my eyes suffered this time; but even the pain derived from that affliction was surpassed by an attack I experienced at about two o'clock. It came on like the sensation of a red-hot iron searing my lungs, and from that moment, every time I took a breath, I experienced agonizing pains in the chest, and which, with intervals of relief, became so acute at times as to leave me perfectly senseless. My two friends and the Indian guides were so terrified at the intensity of the attacks, that they wished to return, but I would not consent to that."

VOL. LVI.—NO. 1

The sun had at least warmed the travelers up to that time, but the heavens coming on clouded, they now began to experience a sharp cold. Sometimes a wall of snow presented itself in front of them, which they had great difficulty in turning. A violent storm then broke far beneath them, the thunder of which was only like so many cracks. They now began to feel alike wearied and discouraged, the day was already far advanced, the summit was still far off, and the Indian guides refused to go any farther. Even the companions of the Baron began to lose courage. It was only upon the latter's declaring that, if left alone, he would still persevere in the ascent, that they consented to remain with him. In order to render their progress less irksome, one of the Indian guides was sent with a long knotted rope in advance; this he fastened with a stick tightly into the ice, and then the travelers pulled themselves up from knot to knot. But the Baron's pains in his chest continued as bad as ever, and were now followed by the loss of blood and fainting-fits. A last annoyance was reserved for the travelers in the shape of a very fine frozen snow that had begun to fall, and crept into their clothes and to their very flesh. It was not till after unheard-of efforts, and the most indomitable perseverance, that, almost utterly exhausted, and yet full of a firm resolve to succeed, the Baron attained the brim of the crater at forty-five minutes past five in the afternoon.

"Success had crowned my efforts," says M. de Müller, "and my joy was so great, that for a moment I forgot all my sufferings, but I was soon recalled to a sense of my weakness by a fainting-fit and the pouring forth of torrents of blood from my mouth.

"When I came to myself again I was still on the borders of the crater, and I summoned together all my strength to look around me and observe as much as I could. I proximatively determined the form of the crater; but my weakness was so great, and the fall of snow continued so dense, that I could not fix its precise circumference with the aid of a sextant. Nor was it in my power to make a topographical survey of the regions below, for nothing could be plainly discerned.

"The crater has an irregular elliptical form; its chief axis is from west-north-west to east south-east, but it curves a

little more to the southward; its length may be about two thousand five hundred metres. Two other axes, running nearly from north to south, have very different lengths: the greatest to the east is about five hundred French yards; the lesser one to the west about one hundred and fifty yards. I estimate the whole circumference of the volcano at six thousand metres.

"The extent of this circumference is perfectly incomprehensible to any one who contemplates the mountain from below from the north-west or south-west; the summit appears much too small to possess so capacious a crater; but, from above, it is seen that the mouth of the crater has a considerable slope in the direction of the south-east, and that at once explains the deception. That which is taken as viewed from the sea, from Vera Cruz, from Cordova, and from Orizava, for a perpendicular wall situated without the crater, is nothing else than the internal lining of the crater itself.

"My pen fails me in attempting to depict the appearance presented by this great crater, or the impression that it produced upon me. It was as the gateway to the infernal regions closely guarded by Night and Terror personified. What terrible power has been evoked to raise and break up such enormous masses, to melt them, to pile them up one upon another, tower-like, till they cooled in such a position and retained their existing shapes!

"A bed of yellow sulphur covered the inner walls at different places, and little volcanic cones rose out of the bottom. The soil of the crater was, however, mostly clad with snow as far as I could see, and was not therefore warm; but the Indians assured me that a warm air issues from the crevices in various places. Although I did not verify their statement, it appears to me all the more credible, as I have frequently observed the same thing to be the case in the Popocatepetl.

"A project which I had entertained from the first of passing the night upon the crater had, by the force of imperious circumstances, been superseded. Twilight, which, as is well known, is under such latitudes very brief, had already set in, and there was no alternative but to return at once. The two Indian guides rolled the *petates*, or straw mats, which they had brought with them, into the

shape of a kind of sleigh or sledge; we then took our seats upon these, and spreading out our legs, had nothing to do but let the vehicles thus extemporized glide down. But, as may be imagined, the rapidity with which we were thus hurried along soon increased to such an extent, that our descent resembled rather a fall in the air than any other system of locomotion; and we were carried in a few minutes over the same distance that had taken us five hours to climb up."

Arrived at the limit of perpetual snow, after having effected their dangerous descent, which the Baron designates as a *schulte*, not without some slight accidents and still more serious perils, our travelers had to accomplish the remainder of their journey on foot. At half-past eight they were cheered by the vision of the fire burning in the grotto of the Valle de Lopus, and they were safely ensconced in it an hour afterward.

"The scene," says M. de Müller, "was singularly changed since the previous evening. The snow had fallen in every direction, and the floor of the grotto had been converted into mud by the increased quantity of water that had filtered into it. Our clothes were also wet through and through, and yet our eyes were so bad that we durst not approach the fire. All we cared for, after fourteen hours' arduous toil, was to lie down and repose ourselves. So we took off the greater portion of our clothes, and let the Indians dry them at the fire, whilst we sought refuge, half-naked, in the driest corners of the grotto. Water was, at the same time, being boiled, so as to make a strong decoction of tea mixed with wine. An hour afterward we had had our tea, our clothes were partially dried, and so happy did we feel, compared with the dangers we had just surmounted, that we slept better than princes buried in sheets of cambric.

"Our sleep was broken next morning by a cheerful sun. The snow of the previous evening was in great part molten, and, strengthened by a good sleep and a good chocolate, we took the road that we had followed on our ascent. About two in the afternoon, as we were approaching San Andres Chalchicomula, I was surprised at seeing the whole population of the town coming out with music and banners to congratulate us on our success. One of our Indian guides had started off from

the grotto of Valle de Lopus by a short cut and with a quick step, and had spread the news of our successful ascent some time before." After having briefly reposed themselves, Mr. Campbell and M. de la Huerta went to the prefect, and made an affidavit as to the positive ascent having been accomplished.

The affidavit was so far correct, but we have seen that the worthy Baron was mistaken when he supposed that he was the first person who had effected an ascent of the Peak of Orizava. The very details which he gives serve to corroborate the correctness of the descriptions given by those who preceded him. The abyss over which he and M. Malmjö found themselves suspended by a thin coating of snow, and which defeated their first attempt at ascending the peak, seems to have been the same "enormous chasm" that is described by Doignon as extending about half a league in a semicircle, and which the French traveler crossed on a fragile bridge of ice. We have also before noticed other corroborations. It is only surprising that the authorities and inhabitants of San Andres Chalchicomula should have left the Baron and his friends in ignorance of the previous successful ascents made, and the last of which they rewarded by their acclamations and their presents.

According to Doignon's measurement, the height of the Peak of Orizava is eighteen thousand one hundred and seventy-eight feet English; Ferrar found it to be seventeen thousand eight hundred and eighty-five feet; and the North-American engineers, seventeen thousand eight hundred and nineteen feet. Baron Müller estimated the height at five thousand five hundred and twenty-seven metres, and "I think," he adds, "I can affirm that no one had the curiosity to explore the summit before us." This estimated height approximates to those previously obtained, and if we adopt the least of the calculations, it would appear that Orizava is the highest point of the Mexican Andes.

These ascents, and especially Doignon's, which were accomplished under more favorable circumstances and with less exhaustion than Baron Müller's, afford proof that the subterranean fire in this volcano, or rather the sources whence its volcanic action are derived, are not extinguished or exhausted, and that the lurking monster, like Etna and Vesuvius, may again

terrify those dwelling on or near it, even after a lapse of three centuries.

The base of the giant is likewise surrounded for a considerable distance with smaller volcanoes. To the north-east and east we see a whole group of blunted cones between steep calcareous mountains, some of which have cast up lava, others mud and ashes; at all events, the last appears to be distinctly indicated in the strata of the sloping plain, stretching eastward from the base of the volcanic mountain Acatepec. To the south and south-east are various craters, hot sulphur-springs, and springs which burst forth from rocky cavities like brooks. The course of the streams has also been much altered by volcanic action. Two rivers, which rise on the east side of Orizava, suddenly disappear. The larger one, Jamapa, plunges into a fissure on the right bank of a deep ravine, and reappears three miles farther off, on the other side of a range of limestone mountains, not in the ravine, but issuing from a cave more to the south. From the point where the river quits it, the bed of the ravine is dry. The other, called Tliapa, after foaming as a raging torrent over the rocks, disappears near Cordova, at the western base of a range of hills, and then reappears as a deep vortex in a steep rocky inlet near the mountain-pass of Chiquihuite, at a distance of two miles on the east side. This rivulet has, further, the peculiarity that the chief source, which is high up in the pine-forests of Orizava, has milk-white, lukewarm water in winter, whilst in the rainy season it is clear and very cold.

On the west side of the Peak of Orizava, toward the table-lands, several volcanic appearances are also met with. Sulphureous vapors rise from a shrubless hill. The Indians use these warm sulphur exhalations to obtain vapor-baths. They dig pits three feet deep, and as many wide, then sit down in them and cover up the top, so as to leave the head free. Not far off there is also a group of mountains called Los Derrumbatos, one of which is cleft, and frequently belches forth flame.

In the plain at the foot of Orizava, toward the west, near the village of Aljojuca, is a crater filled with water, which tastes rather brackish, but can still be used for drinking. This round pool is about one eighth of a mile in circumfer-

ence, with perpendicular rocky sides. A path made by the ancient Indians leads down into the hollow. Farther on, the steep cones of Pizarro and Tepeyacualco rear their summits above the plain, and a mass of lava serves them for a pedestal.

It is pretty generally admitted by geologists that, as expounded at length by the illustrious Humboldt, the forces of volcanic action are undergoing diminution. Every thing tends to show that the crust of the globe has gone through changes which are gradually arriving at a certain point of consistency. But there are speculations which militate against this view of the subject. It is, for example, supposed that in the constant march of creation and disintegration, the great alluvial beds deposited by rivers, and the vast lythophytic or coralline growths in the Pacific, remain to be tilted up from below by volcanic action before they can take their place, some future day, as islands or continents. Be this as it may, and even granting the limitation of volcanic action, there is nothing to show that the country now in question may not yet be some day the seat of some terrific convulsions of nature, and yet these may be, comparatively speaking, slight, as contrasted with such as have preceded them. Further, were eruptions to ensue upon such efforts of nature to relieve itself, they would, from what has been previously noted, be more likely to occur in the table-lands, the sides of mountains, or in lesser ranges, than from the crater of Orizava.

As this lofty volcano has been succeeded by smaller volcanoes and other cones and craters, as above described, so it appears to have itself succeeded its ancient rival Naucampatepetl, or the Coffin of Perote, in the principal mountain chain, and which appears to have been in part destroyed by lateral eruptions, that have occurred at an epoch posterior to when it was itself an active volcano, just as we see going on in the present day with regard to Mount Vesuvius. On the north side of the mountain is the so-called Mal Pais, a broad stream of lava, nearly ten miles in length, whose glazed scoriaceous mass bears every indication of a molten state, while the pumice-stones, scattered far and wide, distinctly prove that a discharge took place in that direction. The mountain is most shattered on the south-

east side, where it has an appearance as though an explosion from the summit to the base had hurled one whole side of the crater to the east. The whole form of the crater and the destruction of the mountain are best seen at certain heights of the sun, when the lights and shade are distinctly brought out. A beautiful plain, remarkable for its great fertility, was produced at its base by this falling in, as also by the streams of lava and the discharges of ashes and mud. The mightiest trees flourish there, and for more than a century maize has been annually sown in the same ground without manuring.

The perpendicular rocky walls, from a thousand to two thousand feet high, of the profound barancas, ravines, or chasms, which every where intersect this region, also enable us to form some idea of the might of volcanic ravages. They are compact masses of firm conglomerate, with larger or smaller fragments of basalt, or a jumble of volcanic tufa. The upper covering is argillaceous of all colors, but mostly ferruginous, and wherever water can exert its influence, iserine, or crystals of magnetic iron, are washed out in great quantities, as in other countries similarly circumstanced. The breaking up of these mountains must have happened at a very remote period, for horizontal stratification may be observed, or at all events divisions into separate stories, marking, probably, different epochs of eruption and cataclysm, and there are deep caves and grottos at their base.

It only remains to be remarked that the lofty Popocatepetl, (seventeen thousand seven hundred and seventy-three feet,) though quiescent, is still active, and close by it is the snow-mountain Iztaccihuatl, which bears the same relation to Popocatepetl as the Coffin of Perote does to Orizava: it is a ruined flue of the same furnace. Nearer to the Pacific two more volcanoes are still active, namely, Jorullo and Colima, the latter since the earliest known periods, the other a recent production of the mighty subterranean fires, which in the middle of the last century called forth terror and dismay on all sides. It is not impossible that this line of volcanic country, stretching from the Atlantic to the Pacific, indicates an occasional subterranean connection or filtration between the two oceans.

From the London Eclectic.

COMPREHENSIVE HISTORY OF ENGLAND.*

IN the literature of any people, the first place must be given to their national history. Such a history, if it be worthy of the name, must have for its chief object to bring into view the social, intellectual, and moral development of the people; to place in its true light their manly struggle for freedom and independence, rather than the intrigues of courts and cabinets; to show the progress of the peaceful arts, rather than the strides of conquest and the spoils of war; to set forth the workings of a free and spiritual Christianity, rather than the platform of any particular ecclesiastical polity. If history be a mirror in which we see the past, and if it be impossible for us to break the link which connects us with the ages and the men who have gone before, then it is at least worthy of remembrance, that the past has given its impression to the present, to ourselves, our institutions, our government, our literature, our religion, and our morality; so that the new is but a farther and fuller development of the old. Never, therefore, did Schleiermacher utter a more profound truth than when he said, that "whatever makes its appearance in any department of history as an individual momentum, is capable of being viewed either as a sudden organization, or as a gradual development and further progress." All national life and progress has its origin in the individual mind. The advancement of the race is dependent on a few master-minds, and these confined to no rank or condition of life. Nor can we refrain from adding that, but for the principle of supreme selfishness, and the obstructive tendency of all class

interests, how different would have been the history of nations! Happily for our age, and happily for the ages yet to come, the spirit of progress, governed and directed by a Power that is omnipotent and irresistible, is conducting the historic life of the world into a new channel altogether, and in which it is destined to flow in ever-deepening force and fullness. So that if history be what Cromwell said, in the years long ago, it was "God manifesting himself," then, just as we can view it in this light, and as a whole—as one grand unity—embracing all nations and all events, and running on to one great final consummation, can its study be either intelligible or interesting.

After a careful examination of *The Comprehensive History of England*, which now lies before us, we are free to acknowledge that, to a large extent, it meets our idea, and fulfills our expectation. We have taken some of the more critical periods in our national life and development to test the fidelity of the authors, and, with a very few exceptions, we have found them quite equal to their arduous task. At the same time we are not prepared to say that the unfortunate, unhappy Mary, Queen of Scots, has received the justice which she deserves at their hands. Let any one read her Letters and Memoirs by the Prince Alexandre Labanoff, and how different will be the estimate of her character! With all her Popish prejudices and predilections, she was a deeply-injured woman. If her amorous connections and matrimonial alliances be incapable of defense, equally indefensible is the conduct of those who, instead of standing by her in her weakness and her wrongs, first deceived her, and then hunted her to death. We are not the apologists of Mary's life and character; but we claim for her even-handed justice from the pen of every historian. The conduct of Elizabeth toward this unhappy woman can

**The Comprehensive History of England; Civil and Military, Religious, Intellectual, and Social. From the earliest period to the Suppression of the Sepoy Revolt.* By CHARLES MACFARLANE and the Rev. THOMAS THOMSON. Illustrated by above One Thousand Engravings. In Four Volumes. London: Blackie & Son, Paternoster Row; and Glasgow and Edinburgh. 1861.

never be forgotten; and it has left a deep, dark blot on her memory, which time can never efface. We know of no words in our mother-tongue strong enough to express the duplicity, treachery, and cruelty of the great Virgin Queen toward the lovely daughter of the fifth James. For nearly twenty years, and without the shadow of pretense, she kept Mary a prisoner, and during her imprisonment treated her with every possible indignity. She then brought her to a public trial, and accepted evidence on which the life of a dog might not have been suspended. After sentence of death was passed, she was afraid to carry it into execution, and encouraged a private assassination. To remove all blame from herself, she employed her ministers to lead on the guard and keepers of the royal prisoner to perpetrate the deed; and when these latter instinctively shrank from taking the life of Mary, she upbraided them with weakness and infidelity. She then turned a deaf ear to the intercession of a son on behalf of his mother, denied the condemned Queen the offices of a priest, and suffered her to go to the scaffold the victim of her jealousy and revenge. After the execution, she hypocritically affected that Mary had been put to death without her knowledge, and against her inclination; imprisoned and fined her secretary Davidson, under pretense of having exceeded his commission; sent a special ambassador to James, to apologize for this "unhappy accident," and feigned her grief in sighs and the outward garb of mourning. Never were professions more hollow! Never was woman's conduct more heartless! We have no wish to depreciate the virtues of Elizabeth, as the sovereign and the mother of her country; but her treatment of Mary will remain as a blot on her character and her reign till time shall be no more. Nor can we dispossess ourselves of the thought that, if Mary had not been so conscientiously and inalienably attached to the Romish communion, Scotland would never have suffered her to be so treated by any sovereign on earth. We have no faith in Popery; but still less have we faith in persecution on the ground of religious belief. It is possible that a man's theological creed may lead him to political wrong-doing, and in punishing the wrong-
 ing his creed may appear to suffer; but

the distinction is eternal between what is civil and what is sacred, and, had this distinction not been overlooked, we think that the lovely and accomplished Queen of the Scots would never have come to so melancholy an end.

In speaking of the suppression of feudalism in England as leading to an increase of the royal authority, as "the inevitable result of the destruction, or, at least, the suspension of that middle or balancing power by which the despotism of the king and the democracy of the people had been ultimately held in check," and as involving a conflict which now "lay between the monarch and his subjects—between the one man who ruled with unchecked and unlimited authority, and the masses who had not yet fully learned their own power, or the mode of using it"—our authors are not slow to admit that the Tudor dynasty well knew how to avail themselves of such an exercise of regal authority. It signally marked the reign of Henry VIII., and not less so that of his high-minded daughter Elizabeth. "Such was the despotism of her rule and the success of her measures, that both Parliament and people were willing to concede to her the same despotic authority that had been granted to her predecessors."

But for this concession, she could never have filled the throne for such a length of years. She was surrounded by those who paid her the most abject adulation; looked upon her as the incarnation of all truth and wisdom—the representative of God himself, if not the embodiment of his essential divinity! Hence the persecution and the wrong, the suffering and the martyrdom which characterized her reign. Hers was a character and a policy with which every historian should faithfully deal. The facts on which that character and policy are founded are patent and incontrovertible, and it is by these we must form our estimate of the Queen. For any such estimate, we look in vain to the volumes before us; and this we deem a defect. History, to be of any value, ought, in every point and particular, to be faithful and true, as just and impartial in dealing with character, as fair and unbiased in dealing with statement. We mean not to infer that our authors have said a single word to give a false impression of Elizabeth's character on the one side or

the other. They have left it just as they found it; and it is of this we complain. While they have left us in no doubt as to the despotism of her rule, they have yet refrained from touching those moral elements of her character which were so conspicuous in her life, and which gave their impression to her court, her subjects, and her age. Her reign was an epoch in English history, and was fraught with immense, incalculable good to the country; but the picture has another side.

To us, the least satisfactory chapter in these volumes is that on Cromwell and the Commonwealth. The state of affairs in the time of the first Charles demands at the hand of every historian the most sifting, searching examination. Nor till this process of investigation is faithfully gone through and finished are we in a position to hail the appearance of Cromwell on the great open stage of life. Then we have to take into account the singularity of the circumstances in which he was placed; the part which he had to perform; the men with whom he had to deal; with the impossibility of maintaining his ground and saving his country otherwise than by arrogating to himself a plenitude and prerogative of power, which, in almost any other circumstances and for any other end, would have been dangerous in the extreme in the hand of any one single man. His only alternative was so to act, or to sacrifice the dearest and most sacred interests of his country. The destinies of England were in his hand; and had he either faltered or failed, the consequences would have been incalculable. Yet he has been publicly reprehended and condemned for the part which he performed in the most eventful crisis in our national existence. Men, either unwilling or unable to realize his position, have traced his whole line of action to the lowest, basest, and most selfish motives. In later years, it is true, he has found an able advocate to defend his name and character; and it may be that the authors of these volumes thought enough had been done by Thomas Carlyle to vindicate the man Cromwell in the judgment of the English people, and of all people, not only now, but in all future time; and hence their comparative silence. Now, if any where, it is on the page of our national history, that the name of Cromwell should be written

in no blurred or blotted characters, in no faint or indistinct terms; but clear and distinct, full, bold, and unmistakable. He had his weak points and assailable, as have all true men; but henceforth no one dare to write him hypocrite, usurper, murderer. It would be a lie in the face of God's bright sun.

To show the spirit which animated the men of that age, scarcely had Charles the Second been restored to the throne, and little more than two years had rolled away since the grave had closed on one of the greatest men the world ever saw, when, on December the eighth, 1660, the Convention Parliament proceeded to attaint Cromwell, Ireton, and Bradshaw; on which proceeding our authors jointly say:

"This vote had another meaning beside that of the forfeiture of the property of the dead, which was too insignificant to excite the cupidity of the wasteful and needy Charles, or the selfish, mean-souled courtiers. On the thirtieth of January, of the following year, the anniversary of the death of Charles I., the solemn recesses of Westminster Abbey were invaded by a brutal crew, acting by the authority of the restored king and clergy; the graves were broken open, the coffins of Cromwell, Ireton, and Bradshaw, were put upon hurdles and dragged to Tyburn; there, being pulled out of their coffins, the mouldering bodies were hanged 'at the several angles of the triple tree' till sunset, when they were taken down and beheaded. Their bodies—or, as the Court Chronicle calls them, their loathsome carcasses—were thrown into a deep hole under the gallows; their heads were set upon poles on the top of Westminster Hall. With the same decent loyalty, the Dean and Chapter of Westminster, acting under his majesty's and their own zeal, afterward exhumed the bodies of all who had been buried in the Abbey since the beginning of the Civil Wars, and threw them into a deep pit dug in St. Margaret's Churchyard. Among others, the inoffensive remains of Oliver Cromwell's mother and daughter, who had both been models of domestic virtue; of Dorislaus, one of the lawyers employed on the trial of the late king, who had been basely murdered in Holland by the retainers of the present king; of May, the accomplished translator of the *Pharsalia*, and historian of the Long Parliament, whose mild and comprehensive language we have so frequently quoted; of Pym, that great and learned champion of English liberty; and of Blake, the renowned and honest-hearted, the first of naval heroes—were torn from the sacred asylum of the tomb, and cast like dogs into that foul pit."

In thus referring to these two most pregnant periods in our national history, it is not to find fault with the compilers.

of this invaluable work. As a whole, they have performed their task with great fidelity and corresponding ability. That no one will join issue with them on some, perhaps many, points, is more than they can fairly expect. Still we can confidently recommend this comprehensive history as a faithful record, well written, beautifully and truthfully illustrated, and worthy of a place in every library, private and public, which is entitled to the name. If no man should be without the history of his country, then we trust that, with the progress of education, and amid the mani-

fold developments of our common humanity, the people will betake themselves to the study of this comprehensive history, that they may learn how the generations which preceded them worked their way, through untold difficulties, to a proud pre-eminence, and so be stimulated to press forward in the race of social, intellectual, and moral improvement, that our country may still preserve its advanced position among the nations for all that is pure in virtue, independent in liberty, and exalted in character.

From the Dublin University Magazine.

T H E C A S K E T O F J E W E L S .

THEY were very precious, and represented four thousand pounds, money value. There were two sprays to encircle the head like a wreath. There was a comb, a necklace, ear-rings, and a brooch. They all lay nestling together in little creeks and burrows of rich blue velvet, shining like glow-worms. The casket lay before me open, on the table—before me, the constituted guardian of these treasures.

There was to be a wedding far away in the great Pontifical city, and these precious gifts were to be poured out into the bride's lap on the eve of the nuptials. In the pardonable lunacy of this period—at which he himself will perhaps wonder some years later—the rapturous husband had ordered out these treasures, and kept his jewelers working double tides to have them ready. They have just been brought home under convoy, and the casket lies open before me. This is Tuesday evening. On Monday next the marriage takes place outside the walls of the city of the Popes, and I, the friend of this husband *in posse*, have consented to take personal charge of this precious load.

There are locks and double-locks—the casket itself mimicking the outside of a dispatch-box respectably. Some one sug-

gested an outer skin or case; but the head of the firm, in consultation, pronounced that such defense would be no real protection, and that the simple shamming of a dispatch-box would be the most effectual security. And it was decided accordingly that, disguised as a dispatch-box it should go, with no more than half an inch of wood or leather between it and the outside world. From the date of this ominous discussion, held at about six P.M. on the Tuesday evening—the Dover mail going down at half-past eight—I began to feel sensible symptoms of uneasiness, not unlike the early qualms of sea-sickness. Fresh from the University, young, full of hope, I relished this guardianship amazingly at a distance; but it was not until the moment of departure, when I took the casket by its stiff leathern strap into my hand to descend to the cab, that the serious responsibility first flashed upon me; it then occurring to me that peace of mind and tolerable assurance of its safety were only to be purchased by never relaxing my fingers for an instant from the stiff strap. This disagreeable notion took possession of my fancy, and worked itself into a hundred awful shapes, and before we had reached Dover a sort of nightmare conviction had taken possession

of me, that in all human probability there was to be for the wretched guardian, no sleeping, no eating, save under conditions of strictest inconvenience; no walking, no lying down; in short, he was to be chained like a felon to this odious yet precious companion. These unpleasant shapes were afterward modified considerably, and did not in reality embody such inconveniences. Down to the town of Dover, where we embarked on board H. M. Royal Mail Steamer, a period of over two hours, the casket lay upon my knees, my fingers firmly clutched upon the strap; and I could see, with uneasiness, that it excited the curiosity of the five other passengers, to whom I then imputed the most felonious designs, but who, I am now convinced, were simply mystified by its eccentric and conspicuous position, and the astonishing power of endurance in the knees that bore it.

How in the cabin of H. M. royal mail-packet I leant back in a seat with the casket still upon my knee, and how in that fatal position, conceded by all to be one of encouragement to the fell enemy of those who go down to the sea in ships, I did battle with the gradual encroachments of sickness, need not be told here; how I at last, after the regular period of suffering, dropped asleep for an instant, and awoke with a shriek, clutching at every object near at hand, need not either be let out. With the morning, and with the sun, I took a brighter and less hypochondriacal view of things. I carried the casket from the packet to the station at Calais. I carried the casket tenderly from the station in Paris to a cab, selecting a cabman with a look of primeval innocence. I carried it from the cab to that other station of the Lyons Railway. I ate a hasty portion of roll, and butter upon it; I drank a hastier cup of coffee, upon it; at times I sat upon it; at times I put my feet upon it; at times I laid it under the seat. Yet, having to go down every three minutes or so, to feel if it was safe; it seemed wiser to restore it to its old position. At times I placed it in the network over my head, straining my neck every moment to see that it was safe, and finally at the Empereur Hotel at Marseilles, I actually took it to bed with me, and in the morning was conscious of acute suffering, and severe abrasion in the left side, from a sudden

thrust of a sharp corner of the casket in the night.

The packet sailed at noon on Thursday; the casket still never left my sight. At eleven A.M. it took breakfast with me in a private chamber, occupying a chair beside me, all to itself; we took another cab together down to the "Docques," casket and I inside, the heavier baggage outside; we got on board together safely, went down into the cabin, secured our berth, and at last, in a tolerable security, I breathed a free breath.

But, before having got thus far on the journey, there were one or two things which I had time to take note of, even while suffering this grievous *peine forte et dure*. The first was, that on the platform at London-bridge I had seen a huge truck of luggage, clearly of the monstrous feminine character; black funereal chests, more tall than broad, containing who knows how many mysteries. Perhaps—into *this* shape it worked itself during the qualms and horrors of the middle passage—perhaps the damning evidence of some fearful crime. But in the fact of female luggage monstrously developed, overgrown, unfairly out of proportion, there was surely no marvel; it was the two figures that walked behind, following the heap close, that attracted me. One was a tall burly man, much swollen after the fashion of fat foreigners, when they incline to obesity, and which gives more the idea of distention than of sound honest fat; not unconnected, too, with a suspicion of bracing. His face, also, was round and tallowy, and smoothly shaven, save only so far as a trim and square moustache, and he wore a comfortable traveling-cap, with a tassel.

There was a lady with him in a round velvet hat, and a veil down, that came exactly to her mouth, and tantalized, and at the same time discouraged. The contrast to the burly barytone—for so I dubbed him—was striking indeed; she was so slightly made, so graceful, moved so airily, and as to all that could be seen of her face, possessed the most exquisitely rounded chin. Looking after them as they passed—barytone, baggage, and the beautiful chin—I almost forgot for a few seconds the precious deposit in my hand.

I saw them next at Paris, in the Customs' Office, where the huge trunks were being disemboweled. The huge trunks

seemed bursting with precious things. One of the disembowelers, having done his savage work, sweeps away the huge monster to make room for others, and thus brings the direction close under my eye—a coronet also under it—"S. E. Le Comte Becco, Palazzo Becco, Firenze."

I say to myself, still clutching the diamond casket, that it was easy to see the tokens of rank and breeding. Do as you will, you can not hide such things under a bushel. Ancient lineage always will betray itself. It did not occur to me at the moment that this betrayal was owing to a very conspicuous card, and was in that sense no self-betrayal; and also that I had previously set down the Count himself as a burly barytone, and busily associated him with the Royal Italian Opera.

I saw them again at Marseilles. The monster trunks were being tilted up on the roof of the huge omnibus for *Service du Chemin de Fer*. I saw them at the door; and presently the round velvet hat, with veil still down to her chin, got in. After her toiled up the steps the portly barytone Count. It was a business of much heat and struggle. A sadly ill-conditioned aristocrat, as I could well make out. A fellow wrapped up in his own comforts and selfish humors, as in that heavy braided Arab's wrapper in which he was swathed. *She* was an angel of sweetness and good temper. But what situation did she fill about his odious person—companion, daughter, waiting-woman, wife, drudge—all convertible terms with *him*?

There was a scent-bottle—a flask of eau de cologne—presently dropped by his odious fingers—omnibus by this time rolling away down into the town. It had rolled away under the seat where she sat, and was for the moment irrecoverable. This set him grumbling—launching out by-and-by into louder abuse, sprinkled with plentiful French oaths; though it was plain that it was his own clumsy fingers, and they alone, that were accountable for the mischief. She never spoke nor remonstrated; but accepted this cruel treatment with sweetest resignation.

"Stupid!" I heard him say, sputtering the words under his breath; "did I not tell you to take charge of it before I got in. You will never attend to what I say, with that mawkish air of yours. Bah! I have no patience with you!"

The injustice of this attack was so fla-

grant, I could not forbear; and with a glance at the precious casket, still across my knees, I said: "Patience, sir, a little patience. A few minutes more and we shall be at the hotel, and you will have your perfume-bottle. Rest assured that it is in safety under some corner of the seat, unless time has, indeed, decayed away the floor of this ancient vehicle, and it has fallen through."

The only reply he gave me was a scowl. *She* lifted her veil, and repaid me with a view of a charming face, perfectly consistent with that promise in the chin. I encouraged her—poor child—with a smile; and I could see she was reassured by the notion, that at least so far as the hotel she should not want a protector, or a sort of moral support.

Here then was the Empereur Hotel, and here we descended for the night. Obese Count Barytone and his white slave, it appears, were to put up here also. Happily, he did not discover that I was about to stop there until his heavy baggage was got in; for he made no concealment of his disgust when I brushed by him in the passage. I openly smiled, with ill-concealed contempt; to her I cast another of those reassuring glances of comfort, as who should say: "Be of good cheer, lovely one; there is a protector for you under the roof, and the number of that protector's chamber is forty-nine, *numero quarante neuf*. Fear nothing." All this I threw into one glance of astonishing meaning, and I *think* she understood me.

At twelve o'clock sailed the Capitole, "*Direct Service*," in the slang of their ticket. A lovely day. Sun shining on the gay streets of Marseilles, as in a scene out of an opera. As before stated, I shared my couch with the precious diamond casket, and passed a night of sad discomfort; for there were two things on my mind—the diamonds and the diamond eyes—the dull insensate precious stones, and that other living casket, infinitely more precious, whose accredited protector and knight-chevalier I now considered myself in a sort of sacred sense. "Sleep, gentle lady," I found myself murmuring, "the flowers are closing. Good night! Good night, beloved. To be near thee; to be near thee," I murmured, adapting Longfellow's well-known lines to the situation.

By noon then, as stated, I was in a cab,

making for the "Docques;" and should have made the Docques very speedily, but for a slow-going, heavily-laden vehicle, which kept before us persistently; no doubt, also making for the Docques. There was a physiognomy about one of the Patagonian trunks standing up gauntly on the roof, which I thought I recognized. A strange feeling came over me. Could there be truth in that sense of a mysterious chain that links kindred hearts together—unseen, unfelt—yet drawing the two by a wonderful law? It made me thrill; and though at the moment I was conscious of a kind of lumbar soreness, reaching even to acute pain, owing to carrying a heavy casket so many hours on my knees, I almost immediately forgot all sense of suffering.

In a few moments we had passed the hugely-laden cab triumphantly, yet not without a sad protest on my part. Be of good cheer, I said, (internally,) as we went by, (keeping myself carefully concealed,) *He* is with thee, and watching over thee from afar.

From the bright decks of the Capitole I saw them arrive; I saw their heavy baggage swing over into the hold, and the huge Patagonian chest (*Her* box; tenderly, more tenderly, ye bearded sailors!) tilted down into Erebus. Then I saw bulky Count Barytone toil up the steps painfully, discharging his venom as he ascended. Him followed closely, accepting all sweetly, and without a murmur, that tender Cenci face. No name is as yet known to me for her. Let me hold you at the font, gentle maid, and christen you, temporarily, "Cenci." You shall be known to me evermore as Cenci.

I shall not forget the look of Count Barytone as he reached the deck, and his eye fell on me. His lips moved with a shower of indistinct oaths, and I could see we were to dislike each other cordially from that moment. Gladly I accepted his defiance of hate, and was glad to meet him any where, on ship-deck or dry land, ready to do battle. But for Cenci, a tinge of pale color lighted up her cheek; for she knew that her champion and standard-bearer was with her. Unconsciously thus, and though it were fated that I was never to address a single word to her, still this sense of moral support thus imparted, must have been

of inestimable value, as to strengthening and comforting her.

I approached them, and spoke words, of course. Why should I be deterred by the brutal humors of the man? "The man at the wheel tells me," I said, assuming a nautical manner; "the man at the wheel tells me that we shall have what he calls a *Beau trajet*. I concur with the man at the wheel; we *shall* have a beau trajet—we *ought* to—have—a—Beau trajet!" This was said slowly, and with a strange meaning.

What I sought to convey, thinly disguised under the forms of an indifferent remark, was that there was an influence "aboard," (not *on* board,) superior to the vulgar force of storms and tempest, and which would send us gliding over the smooth waters, not to be disturbed by a ruffle. This compliment was so delicately implied, that I think it was imperceptible to the dull appreciation of the monster.

She understood me. "The wind," I continued, "is Nor-nor-east. The wind is favorable—*very* favorable"—(another meaning look condensed here.) This while I was standing with the casket hanging conspicuously from one hand, and my arm was growing a little fatigued.

"Come down," growled the Count. "Come away—why do you keep me?"

"In an instant, dear," she said: "first let me thank this gentleman, who was so kind about the scent-bottle!"

I saw that the memory galled him; but as this was a quasi introduction, he had to check his boorish ways, and, with a forced constraint, murmured some grudging words.

That thirty-six hours' voyage was to me a voyage to Paphos in Cleopatra's own galley. It was all war and love, in the most delicious contrast. I loathed *him*; and he, I knew well, heartily reciprocated that animosity; for his treatment of that poor suffering lady that accompanied him grew every hour more barbarous. I could see, every hour, as opportunity and intimacy favored, that he was a brute and domestic tyrant. He was wasting her precious existence away by his treatment; and she was speeding fast, too fast, to that other world where the wicked shall cease to trouble and the weary are at rest. I

yearned to approach him privately, and whisper: "Come with me—let us make for a secret place on the foredeck—where we may have this business out: the first mate will see fair."

At last, so odious was my presence to him, that he kept below as much as he could, and appeared but seldom. She came there often; for those pale cheeks were the sea-breezes healthful. It was I who prescribed *that* treatment. "Be as much," I said, "in the open air as possible—shun the corrupt atmosphere of the cabin; for *you* it is death." And here again, with this simple expression, I contrived to throw such a world of meaning, that I think if I had been speaking hours I could not have conveyed more. I spoke, as it were, by the way of parable. I was fast gaining a strange and curious influence over her.

Soon a sort of confidence sprang up between us; and I often detected the pale, Cenci-like face fixed on me pensively, as I sat, sometimes near her, sometimes opposite; with the casket all the time in the old familiar position on my knees, at other times disguised artfully under a cloak upon which I sat. It thus had the effect of raising me very high, and lent a not unnatural nor yet ungraceful dignity to my figure. Sometimes she called me over to her, and then I took it with me, and sat upon it beside her, or rested it in the old familiar position upon my knees.

Gradually I won upon her. I saw she was struggling with a new and hitherto unfelt fascination, and that her strength was every day growing weaker. She did not, indeed, tell me her history; at least I wrung it gently and soothingly from her reluctant lips, and I shall not forget the tumult of my heart, the triumph, the elation, when she told me that *HE*—the human porker, who, at this pleasant hour of the morning, when we are all breakfasting on the blue and silver Mediterranean waters, is still a-bed, or, more strictly speaking, a-berth—that *HE*, I say, was no more to her than a legally constituted guardian—in plain words, a sort of remote uncle on the mother's, or, perhaps, grand-mother's side.

All this while the casket had never quitted me an instant. It was of inconvenient size, scarcely portable, for it was a foot and a half long by a foot broad. I took it with me on to the deck; I took

it with me into the cabin; I took it with me on to the paddle-wheels, where I loved to commune quietly with the blue Mediterranean, under moonlight; I took it with me into the seclusion of my berth; it came to breakfast; it came in to dinner. I sat beside her, and we both put our feet on it.

"Tell me," she said, in her sweet accents, the second morning, as we all sat at breakfast—he, the swine, was still in bed—"tell me one thing; may I make a guess, and will you tell me if I guess right?"

I answer enthusiastically, "Yes—a hundred times, yes."

"Well," she said, "I am going to be inquisitive, very inquisitive. But I know well why you always carry about with you that strange-looking case. You are invested with a diplomatic character. You are in the nature of an ambassador to high powers. You are carrying important dispatches, and that case contains the papers!"

She looked at me triumphantly, and smiled.

I smiled, too, consciously. It was not a foolish idea. Had they been my own jewels I would have told her without an instant's hesitation. As it was, the whole thing was half-way to my lips. Though, after all, was it generous to be thus reticent with *her*? Still, that character of diplomatist was infinitely more flattering, and I could not bring myself to wave it off.

"Ah!" she said, "I can read it in your face. I saw it from the very beginning. Trust a woman's penetration to find out the true character. Neither did it need that outer sign and badge of office. Your looks, your manner, your speech, artfully composed, so as to conceal your thoughts; all this betrayed you. I knew you were skilled in the mysteries of dealing with men and" (this with some hesitation) "in women. Even the way you became introduced to us proved this most clearly!"

I smiled again; it was true. Though not strictly and officially marked F. O., still I always felt within me that curious administrative ability which reaches almost to an instinct. I was, as it were, one of Nature's own diplomatists, though not yet strictly accredited. So, once more, I smiled again.

"Ah! you will not speak," she said,

"you will *not* trust me, a poor woman. We are too talkative. *We* can keep no secrets. Ah! cruel, cruel Metternich!"

I smiled again. Some way I found there was a strange force and purpose in that smile of mine. It seemed to have all the force and fluency of a language; so, I say, I smiled again.

"Wicked, unkind Metternich, perverse Talleyrand," she went on; "I know it all now, but I will not press you more. It is not fair. Ah!" she gave a start, "here is Ludovico."

The Great Bear, Ursa Major I christened him, was beating up the saloon now. To say the truth, I felt far less hostile to him, now that I had discovered their true relationship. He was not nearly so objectionable, and that obesity, poor soul, it was only his infirmity; we should have allowance for our poor fellow-creatures not so blessed as we are. So from that time forth I buried the hatchet, (figuratively speaking,) and would have smoked the pipe of peace with him, (still figuratively,) had he suffered it. But though not offensively hostile, he was surly, and stood off. The Cenci and I interchanged looks, privately, when he became thus morose; for we understood each other. I say no more.

He was outside our little circle. We had our own allusions—a sort of allegorical form of speech unintelligible to, and utterly independent of him. I almost think he began to feel the awkwardness of his situation, being thus pointedly, and yet all the while with perfect politeness, excluded from our confidence, and I think he showed his sense of this treatment by a sort of rough surly protest.

"How do you manage him?" she said; "what strange art is this you have found? Ah! what a happy voyage has this been. It is a calm, a tranquil holy calm after a storm. It is alas! only too short!"

They were going on to Rome, the city of the Cæsars, of the Emperors, of the Popes—where the gladiators bled, where the early Christians bled—where travelers bleed now. We should see the places hallowed by a thousand associations, and grow enthusiastic in concert. The arrangements as then understood, and to which *He*, Ursa Major, was no party, was that *He*, Ursa Major, owing to his size, inconvenient for locomotion, should be left at home—in bed, say—

whilst we, unshackled, should go forth and study the evangelical Murray of the crimson coat, together. It was all arranged.

During that Paphian voyage I may say I traveled over all her mind. She kept nothing from me. He used her barbarously. She did not indeed tell me this; her gentle nature would not admit such a disclosure. Rather with an exquisite art I extracted it all from her, she being unconscious. All the while, too, I kept up passively admitted perhaps, would be the proper form of putting it—the innocent fiction of the diplomatist. I was the accredited minister traveling, say with secret dispatches, for Mr. Odo R——ll, Secretary of Legation; a nice and delicate mission, for as is well known, we have no direct diplomatic relations with the S——e of R——me.

Here, at last, is Civita Vecchia, and here at last we go ashore from Cleopatra's galley. It is a Sunday. We are rowed ashore in boats. Ursa Major still surly. Cenci now resuming velvet hat down to chin. Her maid, his valet, an ill-looking fellow, which made up the suite of the "Illustrissimo Signor Il Conde Becco," and all the heavy baggage. We passed through the ordeal by Custom House together; went to the railway together, and flew away to Rome together. "O Giorno felice!" I exclaim in my new-found tongue; and happily adapting a few fragments to the moment—"Ah Giorno felice. Qual bella vista! Ah ei ancora denique eterno!" Whether this dialect was strictly pure and correct is not for me to say; but it seemed to have a prodigious effect. She looked at me with wonder.

"What, dear Metternich," she said, "you can speak Italian. Ah! wily, wily diplomatist!" and she shook her finger at me playfully.

"Poco-poco," I answer, with some modesty; and meeting her humor.

"Where is your biglietta? The conduttore will be asking for it presently."

"See, il mio casketta is getting burdensome; but I shall soon have done with it."

"Yes," she said, knowingly, "and a certain Cardinal will know something of it presently."

"Hush!" I say, cautiously, looking round; "heaven knows how many spies are within ear-shot." It was true. But

an hour more of the casket. I should deliver it at once—have done with it forever, and return to spend my first evening in Rome with them.

"Whisper," she said, as we left the railway carriage, and I was looking round for a cab; "why should you leave us now? We may be going the same way—the same road. Where do you wish to leave your — dispatches?"

"No. 43, Via Condotti."

"That is exactly on our road to the Palazzo. You shall stay with us at the Palazzo. You must have a room there."

"But," I was saying, "the Conde—"

"Never mind him. He, of course, will not like it. You must be prepared for a little crossness from him. We have all our trials. But perhaps you would shrink from encountering that for my sake. Why should I ask you? True, you have indeed, been a protector and a shield to me during these last few happy days, and now —"

I smiled on her again. I had a pleasant little Italian fragment ready; but, instead, only smiled on her. It at once quieted and reassured her.

"We will take him with us in the carriage," she said to the bear; "it is all in our way."

He grumbled and growled savagely. We look at each other. We expected this. Grumbling and growling he was helped into the carriage; grumbling and growling he flung himself back in the seat. He feared me, I think. Just as we were starting, he roared out, "Diavolo! where is that beast, Beppo?" (this was the valet.)

"He is outside, dear, on the box with Catterina," (her maid.)

"Let him come down again, and come in here. My head is heavy."

She whispered to me that his head became heavy, *very heavy*, often, and in such cases he leant it on Beppo's shoulder and slept it away. I smiled intelligence to her.

"Then we must have Beppo in," I said. "Diavolo!" I continued, shouting from the window; "descend *Traditore*. You are to come in *a la porta*—poco poco."

"Si Signor," he said, respectfully touching his hat. It was marvelous this wonderful and sudden command of a difficult tongue. I have heard of French in six weeks; but here was Italian in an hour.

We rattled through the Roman streets all now lit up. Very strange and new it appeared to my eyes, and yet with a certain familiarity, as of old acquaintance. I pointed out to her the various objects of interest.

"Ecco un Prêto," I said, as an ecclesiastical personage, in a large hat and cloak went by.

"San Pietro! Ecco," I said, in a transport of enthusiasm, as the famous dome loomed into view.

"Rivero!" I said, as we looked down on the muddy Tiber, I playing cicerone to her. By-and-by it seemed that we were getting out of the city, out on a country-road, as it appeared.

"Where are we going?" I asked; "we are a long time getting to *Via Condotti*."

"Ah!" she said, shaking her finger at me, "you know more of these things than you will admit. You have been here before on secret missions. Every stone and pillar and street of this glorious Eternal City is familiar to you! Don't tell me. Why will you not trust me? And yet it is very natural, too natural."

I shook my head. Some way through life I have always had this smack of familiarity with things never known before. I did, indeed, appear to have walked the Eternal City before now; and as for the language, she said I had actually caught the very accent. I can not account for this phenomenon.

"Patience, dear Metternich," she went on—she always called me Metternich; "we are only just entering Rome—the Eternal City. Do you not feel a strange enthusiasm?"

"Yes," I say, "Roma! Roma! Roma! This, I suppose, is un suburbo, a mere suburb."

"Just so," she said.

We were a still longer time getting to the city, and it appeared curious, to say that the lights began to disappear as we drew nearer. I noted a lonely road, with rows of trees; then we got into an uneven lane.

Suddenly the bear woke up.

"Where are we?" he said, doubtfully.

Latterly, indeed, the casket had not been a source of such solicitude to me. Some way it was swallowed up in a higher sense, and was lifted up into a cloud, and these smaller cares of life seemed to be contemptible. I did not sit upon it so

frequently now. I did not attempt to share my berth with it as I had tried to do the first night. The excess of care I felt was only ludicrous. It was safe: I would arrive safe.

"Not far from the Palazzo, dear," she said. "They will be all up expecting us."

"Who?" I ask.

"The Count's tenants and relatives," she answered. "Every window will be lighted, the gardens will be hung with colored lamps, the musicians will be there, and, in short, there will be a little fete to celebrate his return."

"Un festo," I say; "we shall dance the first set." This I added in a low whisper; yet not so low but that he heard me.

This speech seemed to exasperate the old Conde.

"You should dance the first set with that chest of yours," he said, touching it with his stick. "Come," he said, looking at me sardonically, "you must be pretty well tired of it. How many days now have you been carrying it about with you?"

I was used to this humor and language of his. It only amused me.

"I shall only be troubled with it a very few minutes more," I said gayly. "We shall drop it at Via Condotti."

"You had better let me carry it for you a little," he said jeeringly.

"No, no!" I said, in the same light tone of banter; "it is too precious for that. It would not be in character to let it out of my hand. You know what I mean," I added to her, alluding to the little diplomatic joke that had been carried on between us.

"Ah! yes," she said; "we know what is in it."

"You had better let me carry it for you," said he, very rough and surly.

"Humor him," whispered Cenci.

"Oh no!" said I petulantly.

The carriage stopped suddenly. "Ah!" I say, "here is the Palazzo! Vive la danse! Our journey is ended. Let the festivities commence."

"Yes, the festivities shall commence," said the Count, with a sneer.

In another instant he had flung himself on me with the whole weight of his enormous person. In another instant, the ruffian-looking servant, Beppo, was holding the cold iron of a pistol-barrel to my forehead. In another instant—oh! cruellest stroke of all! I felt two soft hands but very strong ones, withdrawing the precious casket from my pinioned arms and stiffening hold. I shrieked—I roared for aid. Some one had tied my arms behind; and, oh! second cruel stroke—the same soft hands were fastening a bandage over my eyes.

They dragged me from the coach—the ruffian and the fat Count, now suddenly endued with wonderful activity. They forced me into a field; tied me up again there, behind a hedge, to a sort of stone pillar, then left me.

They departed, the Count and his servant, uttering horrid threats. But *she*, the traitress, (and yet, perhaps, after all she was but a victim, struggling against her inclinations, and obeying the brutal logic of force,) *her* voice reached to me the last—from a distance—calling out, musically: "Adieu, Metternich! Farewell, Talleyrand!"

There was a gay wedding among the English settlers, outside the walls, "*fuori le mura!*" but it was noticed that the bride had no jewels. She never wore those particular jewels. The Roman police are not the best detectives in the world.

THE BIBLE TRANSLATORS.

THIS is the significant and expressive title of the artistic plate which embellishes our present number. In the past years and volumes of this work, we have gathered up many portraits of men of renown; monarchs, statesmen, historians, *savans* in the varied walks of science and literature, whose names stand out in bold relief on the historic canvas, and in the annals of mankind. But the men whose fine portraits are engraved on the plate at the head of this number, have performed a work and inaugurated a train of benign influences for the moral benefit of mankind, whose expansive march will scatter blessings in rich measure along the track of coming ages. Their talents, their character, their attainments, their relations to a great national society, and their moral worth and intellectual achievements, justly place them high on the list of benefactors of mankind. They have deserved well of the age and country in which they live. They do not wear crowns, they do not wield the scepters of power on earth, or hold seats in the council-chambers of kings and nations; but the honors due these laborious and unobtrusive men, are inferior to none which earth affords and which no revolutions of empire or time can tarnish.

A few words of explanation seem fitting and needful to add interest to the design and object of the plate.

The scene so well represented, and the almost life-like portraits so truthfully engraved, are intended as a historic memorial of these eminent men themselves and of the great work to which a large portion of their lifetime has been devoted. It is a biographical index of their lives. It is a condensed chapter in their personal history. Many years of intellectual labor, of toil, of research, of patient investigation into the structure and philosophy of various ancient and modern languages, and a long residence among the people in the Turkish Empire have been needful and imperative to endow them for the difficult and responsible work which they have performed. Their work of translating the Bible into five different languages for the

instruction of millions, is a memorial monument more enduring than Parian marble. Their labors in this form will travel down in their benign influences, through all coming ages. Their work, under the direction and auspices of a great national society which has furnished the necessary funds for this and kindred objects is full of moral grandeur, seldom equaled in the annals of the world.

The scene and the portraits, were photographed from life, by native artists at Constantinople a few months since. We obtained it from a gentleman of New-York, who kindly placed it at our disposal. It has been engraved for the monthly embellishment of the *ECLECTIC*, both as a memorial of the men and their work, and also to gratify very numerous friends of the American Board of Foreign Missions, and others who have long taken a deep interest in the missionary movements in progress in the Turkish Empire.

Let us gather around the plate for a few moments and inquire its meaning, and who are the originals of the portraits, and what they appear to be doing. It is a scene of no ordinary interest. It is laid in a quiet and retired room in Constantinople. They are secluded from public view in their patient daily toil. They are surrounded by a million of inhabitants in the city, and by many millions more in the Turkish Empire; for whose enlightenment they labor, but who are little aware of the object, and little appreciate the vast benefits which are to be the result. They are seated at the table deeply intent on their great work. Books and versions of the Bible in ancient and modern languages are on the table, or near at hand. They are doing what, doubtless no three men ever attempted to do before, at the same time, since the world began, they are translating the Bible into five different languages, which are now spoken or read by millions in the Turkish Empire. Their aim and object is accurately to express in these various languages, the true meaning of the sacred Scriptures, and as near as possible the exact mind of the Spirit. This work has become needful and

imperative. The Scriptures hitherto have not been translated and printed in a language which these millions can read and understand. The object of these beneficent labors is to open the windows of heaven and let in upon the dark minds of these millions, the illuminating power of the Scriptures.

The scene in the plate represents these actors thus engaged in translating the Bible into the modern Armenian, into Bulgarian, into Hebrew-Spanish, into Arabo-Turkish, and into the Armeno-Turkish languages. As they appear in the plate, Dr. Schauffler is supposed to be offering a criticism on the language or phraseology proposed to be adopted in the translation; Dr. Riggs, with his characteristic accuracy and caution, is in the act of consulting the best authorities as to the use of words or phrases; Dr. Goodell has raised his head, put back his glasses, and seems in deep thought, pondering the question as to whether any change in the phraseology proposed would better express the true meaning of the passage. This, at least, is the view of their attitude and actions, as we understand it. It is obvious to remark here, how much time, talent, learning, research, and patient investigation were requisite to translate the Bible accurately into these five languages.

THE TRANSLATORS THEMSELVES.—It is now nearly forty years since the first of these devoted men left the United States to enter on his work in the Turkish Empire. These men went, leaving behind them home, friends, and country, to spend a lifetime in self-denying and laborious service for the good of the vast population in that part of the world. They went as strangers to the people, to the government, and to the many different languages there spoken. They encountered difficulties, oppositions, persecutions, dangers, and threatenings to their lives. They were often in peril; but the protection of guardian angels was over them, and they were preserved. They escaped all the dangers and perils. They are heroes in the truest sense of the word. They have devoted more than half a lifetime for the good of others, in foreign lands, speaking other languages. It is no common service they have performed. They are not

ordinary men, however unambitious and unaspiring to the honors of the world. His Majesty the Sultan would find it difficult to duplicate these men within his empire. No rewards or honors of earth could compensate them for such a life of labor. They look for a more enduring recompense. But they are not alone. Other men, other minds, of kindred spirit and object, have borne the burden and heat of the day with like endurance. British Christians also have taken a large interest in this great work, and have contributed liberally to sustain it. The British Ambassador also (Lord Stratford de Redcliffe) has long been the warm friend of the missionaries and their object, and often given strong proofs of his confidence and regard for their persons and character. He has exerted his official influence in their behalf. With all these facts, many of our readers may be familiar; with others, it may not be so. We desire to do honor to the American character in other lands; and we only add the noble testimony of Lord Shaftesbury, President of the Turkish Missions Aid Society, in his speech in Exeter Hall, May, 1860. He said:

"I do not believe that in the whole history of missions; I do not believe in the history of diplomacy, or in the history of any negotiations carried on between man and man, we can find any thing to equal the wisdom, the soundness, and the pure evangelical truth of the body of men who constitute the American mission. I have said it twenty times before, and I will say it again—for the expression appropriately conveys my meaning—that 'they are a marvelous combination of common-sense and piety.' Every man who comes in contact with these missionaries speaks in praise of them. Persons in authority, and persons in subjection, all speak in their favor; travelers speak well of them; and I know of no man who has ever been able to bring against that body a single valid objection. There they stand, tested by years, tried by their works, and exemplified by their fruits; and I believe it will be found, that these American missionaries have done more toward upholding the truth and spreading the Gospel of Christ in the East, than any other body of men in this or in any other age."

We subjoin brief biographical sketches of the translators from authentic facts and materials gathered from sources in this country, without the knowledge of the missionaries themselves in a far-off land.

R E V . W I L L I A M G O O D E L L , D . D .

REV. WILLIAM GOODELL, D.D., was born at Templeton, Mass., February fourteenth, 1792. His father, who served his Divine Master with almost singular devotion during a long life, having also served his country three years in the army of the Revolution, died on the nation's birth-day, July fourth, 1843, at the age of eighty-six. The son pursued his preparatory studies at Phillips' Academy, Andover, Mass., and graduated at Dartmouth College in the class of 1817, and at Andover Theological Seminary in 1820. Having devoted himself to the work of Foreign Missions, under the care of the American Board, he was ordained at New-Haven, Conn., September twelfth, 1822, and embarked with Mrs. Goodell at New-York, December ninth. He arrived at Malta January twenty-first, 1823, where he spent nine months, studying the languages that were to be employed in his future labors in the Turkish empire. Leaving Malta, he arrived at Beirut November sixteenth, 1823, and remained there about five years, during which he became familiar with the Arabic and Turkish languages. Upon the breaking out of the Greek revolution, the East was in an unsettled state, and Beirut sharing in the general agitation, a party of Bedouin Arabs was sent to protect the city against the Greeks who threatened to attack it. Their protection was such as the wolf gives to the lamb. They devastated the town, plundering houses, and laying waste gardens and grounds. They attacked the house of Dr. Goodell, who barricaded the door, and from an upper window endeavored to dissuade them from their purpose of plunder. One of the horde leveled his gun, and threatened to shoot him, while the rest broke open the door, and rushing in, seized every thing on which they could lay their hands, carrying off trunks, boxes, and even the cooking utensils. Only the room of Mrs. Goodell was spared, as a matter of oriental gallantry. As an illustration of the coolness with which the whole thing was carried out, one of the Bedouin robbers returned the next day and demanded

of Dr. Goodell, pay for a pouch of tobacco that he had lost in the assault. Consular protection being suspended in Syria, Dr. Goodell was obliged to return to Malta, where he remained three years. In May, 1831, he removed to Constantinople, which has been his residence until the present time, a period of thirty-one years. Soon after he reached Constantinople, Pera, one of the principal suburbs of the city, and the only one where foreigners generally were permitted to reside, was entirely destroyed by fire. In no other city in the world, probably, have so frequent and such terrible conflagrations occurred, as in Constantinople; and this one, of August second, 1831, was more fearful than any that had preceded it. There had been no rain for a long time, and the houses being built of wood, were like tinder, easily inflamed; a strong wind carried brands of fire through the air to distant places, and the flames thus spread simultaneously far and wide. Only eight houses stood at sun-set where at sun-rise there had been many thousands. Many lives were lost, some by the flames, and others by the crowd trampling one upon another in their frantic haste to escape. Dr. Goodell and his family lost every thing in the conflagration, and the very clothing which they wore was several times on fire, owing to the intense heat of the flames to which they were exposed.

In the year 1839 a severe persecution against the missionaries and the Christian converts at Constantinople, threatened the utter suppression of their work and their forcible expulsion from the country. A society was actually formed to get rid of the missionaries by poison. Dr. Goodell and Dr. Hamlin were there alone with their families, and having committed no offense against the law, they determined to abide and await the result, relying upon the care of God, in whose service they were laboring. The storm of persecution after a while passed by. Often during the residence of Dr. Goodell at Constantinople, the plague broke out in the city with great violence, from one

thousand to fifteen hundred daily being numbered with the dead. These various calamities and perils are mentioned to show the vicissitudes through which many of the missionaries of the cross have passed who are now living and laboring unmolested.

The missionaries at Constantinople have, as a matter of necessity, become polyglots. Several years since, Dr. Goodell wrote: "Every Sabbath we preach in five different languages at Constantinople, namely, English, German, Greek, Turkish, and Armenian. In three others also, namely, French, Italian, and Spanish we have preached, and we might every Sabbath had we strength and time. I was myself called upon to lead the music every Sabbath, in four different languages, namely, English, Greek, Turkish, and Armenian." Although they devoted themselves chiefly to preaching, it was early found indispensable to have the word of God translated into the languages of the country, and the variety of tongues used in daily life in the Turkish empire, made several translations necessary. Dr. Goodell devoted

himself to preparing one in the Armeno-Turkish, which is the Turkish language in Armenian character. He accomplished the whole work alone, translating the Scriptures out of the original Greek and Hebrew, completing the Old Testament November sixth, 1841, and the New Testament within less than two years after. The day on which he completed this great work, he wrote to his former instructor, John Adams, LL.D., of Phillips's Academy: "Thus have I been permitted, by the goodness of God, to dig a well in this distant land of which millions may drink; or as Brother Temple would express it, to throw wide open the twelve gates of the New Jerusalem for all this immense population." He has now nearly completed a thorough revision of this work.

Dr. Goodell came to this country with Mrs. Goodell on a visit in 1851, for the first time since their departure in 1822. Soon after his return two American colleges simultaneously conferred upon him the degree of Doctor of Divinity.

REV. WILLIAM GOTTLIEB SCHAUFFLER, D.D.

REV. WILLIAM GOTTLIEB SCHAUFFLER, D.D., was born at Stuttgardt, in the kingdom of Wurtemberg, Germany, August twenty-second, 1799. When he was about eight years of age his father, in company with many families residing in the same region of country, emigrated to the southern part of Russia, attracted by the numerous advantages which the liberal reign of Alexander I. offered to foreign residents. Here, in the city of Odessa, a celebrated seaport on a bay of the Black Sea, the son spent his boyhood and youth, assisting his father at his trade, that of a musical instrument maker. His attention was first seriously called to the subject of personal religion by the preaching of an eminent clergyman of the Roman Catholic Church, by the name of Lindel, who was subsequently deposed from the sacred office on account of his evangelical sen-

timents. At the age of about twenty-two, amidst the opposition and ridicule of many friends and associates, Mr. Schauffler became a decided Christian, and devoted his life to the cause of his divine Lord and Saviour. His attention was directed to the missionary work by the example and influence of an independent Swiss missionary, who was laboring among the Tartars of the Crimea. Resigning all worldly prospects and claims, he left home in the year 1826, with the intention of supporting himself while engaged in missionary labors among the inhabitants of Eastern Turkey. With this object in view, he proceeded to Constantinople, which he found under the military despotism of the Janizaries, and suffering at the same time from the fearful scourge of the East, the plague. From Constantinople he proceeded by a long and tedious

journey on horseback to Smyrna. Here he met with the well-known and now veteran missionary to the Greeks, Rev. Jonas King, who was then just commencing operations in the East. After conference with him, and learning more of the state of things in Turkey, he determined to visit this country, and if possible prosecute a course of study, preparatory to entering upon a missionary life. After a tedious passage of over a hundred days, in which the whole company were put on short allowance, they finally reached Boston. Mr. Schauffler's first care on landing was to obtain employment at the trade which he had acquired from his father, and then to present his letters of introduction. Mr. Evarts, Secretary of the American Board, Professor Stewart, of Andover, and others, were interested in him, and he was soon established at Andover, and commenced his studies. Within the ensuing five years, besides going through with nearly all the usual collegiate studies, and completing the regular course in the Theological Seminary, he devoted much attention to the study of Arabic and Chaldee. While at Odessa, he had obtained a thorough knowledge of the Russian, French, and Italian languages, and had also made some progress in the study of English, German being his native tongue.

Dr. Schauffler graduated at Andover Seminary in the class of 1830. He embarked at New-York, on his return to Turkey, December first, 1831. On his way he spent several months in Paris, studying Arabic and other Oriental languages, and reached Constantinople July thirty-first, 1832. He left this country

under appointment from the American Board as missionary to the Jews in the East. One of his first labors was to make an extensive tour of exploration through European Turkey, in company with his former fellow-student at Andover, the late lamented Dr. Dwight, who was his colleague for nearly thirty years. In the prosecution of his mission to the Jews, he devoted his attention in a large measure to the translation of the Old Testament into the Hebrew-Spanish. The translation being completed, it was deemed expedient to have the printing done at Vienna, and he was accordingly occupied there, in attending to its execution, from 1839 to 1842. He also prepared a Grammar and a Lexicon in the same language, and after completing these works, he gave himself to the revision and printing of an edition of the Bible in Hebrew-German for the German Jews. In 1856, Dr. Schauffler suspended his labors among the Jews, and devoted himself to the Mohammedans. In entering upon his new field, he directed his attention to the revision of a translation of the Bible into Osmanli-Turkish, on which he is still engaged. Since he undertook this work, there has been a great demand for the Bible among the Mohammedans in Turkey, and several thousand copies of the word of God have been already sold or distributed among them. There have also been several conversions to Christianity from their numbers. The Crescent is the *crescent* no longer; it is now on the wane, and even the Moslems themselves entertain the opinion that it is destined to be superseded by the Cross. May the day speedily come!

R E V . E L I A S R I G G S , D . D .

REV. ELIAS RIGGS, D.D., was born at New-Providence, New-Jersey, November nineteenth, 1810. He was the son of Rev. Elias Riggs, for many years pastor of the church at that place. A friend states that from his childhood he seemed to take more earnest views of life than is common with persons in early youth, and he began very soon to apply himself vol-

untarily to study. He commenced Hebrew when about eleven years old, having no instructor, and no aid in the study of the language but such as he derived from a work of the late Rev. Dr. Wilson, of Philadelphia, the only book of the kind then within his reach. The Hebrew text in this was without the vowel-points, but he mastered all the difficulties. His

father subsequently procured for him a copy of Van Der Hooght's Hebrew Bible and Stuart's Hebrew Grammar. In all his subsequent studies and labor in the translation of the Bible, this copy, which his father procured for him in his youth, has been his constant companion and book of reference. In 1815, when he was not yet fifteen years of age, he entered Amherst College, and about the same time made a public profession of religion. While in college, he devoted himself assiduously not only to the prescribed course, but to general reading, and to other studies, which it afterward appeared was providentially ordered as a means of preparation for his future work. At Amherst he continued the study of Hebrew with the cognate dialects, Chaldee and Syriac. Finding in the college library a manual of the Syriac Grammar in Latin, he translated it into English and transcribed it into a volume which he used in the study of that language. He was chiefly remarkable while in college, for his patient, persevering fidelity, and thoroughness in whatever he undertook, and to this was owing in a great measure his success as a linguist. Besides the languages already named, he commenced the study of the modern Greek, French, and Spanish. He had the Greek Oration on his graduation, in 1820.

He entered Andover Theological Seminary the same year, and graduated in 1832. He was ordained at Elizabethtown, New-Jersey, September twentieth, 1832, married the same month, and em-

barked at Boston October thirtieth, being under appointment from the American Board as missionary to Greece. He reached Athens January twenty-third, 1833, where he remained with Dr. King for more than a year, for the purpose of perfecting himself in the modern Greek. He removed to Argos in May, 1834, and established a missionary station at that place, where he remained until a law was enacted requiring that pictures of the Virgin Mary and of the saints, which the children were taught to worship, should be hung up in the school-rooms. This broke up the Protestant schools, and in November, 1838, he removed to Smyrna, continuing to labor among the Greek population. In 1843 the labors of Dr. Riggs were transferred from the Greeks to the Armenians, and he commenced the translation of the word of God into the Armenian, which has been his chief work of translation. This accomplished, he undertook a translation of the Bible into Bulgarian, for which there was a great demand, and on this work he is now engaged. The first volume, including the Pentateuch, has been published, and the second, including the remaining historical books of the Old Testament, is now nearly or quite complete.

Dr. Riggs removed to Constantinople in 1853, where he now resides. In 1856 he came to this country with his family on a visit, for the first and only time, and remained until 1858, when he returned to his eastern home and his labors.

THE AUSTRIAN NAVY.—A letter from Trieste, some time since received, gives interesting details respecting the Austrian squadron of evolution now assembled in the Adriatic. The squadron, which has been formed silently, consists of fifty vessels, of which thirty-four are steamers, and sixteen sailing vessels. In the former category there are some fast screw line-of-battle ships; among others the Kaiser, ninety-one guns; the Radetsky, Danube, and Adria, frigates, of thirty-one guns; the Archduke Frederick, the Dandolo, and Elizabeth, of twenty-two guns; ten first-class gunboats, armed with five rifled

cannon each, and provided with machines of two hundred and thirty horse power. This squadron is placed under the superior command of Archduke Maximilian, Lord High Admiral of Austria, whose second in command is Rear-Admiral Bourguignon. The crews are chiefly Slavens, Dalmatians, or Germans. Independently of the organization of this squadron the Austrian government is actually constructing ten ships-of-war, among which are two cuirassed frigates, and six sailing vessels are being transformed into steamers. Great works are under construction at Pola.

From Chambers's Journal.

A N O N - C O M B A T A N T H E R O .

A POLITE French gentleman who had meant no harm, was once knocked down by an ancient English civilian because he had called him a non-combatant. "No Briton," urged the latter, (in extenuation of his hasty conduct,) "no matter what his profession or his age, should ever be called a non-combatant, or any thing like it, and least of all, by a Frenchman." Our venerable countryman had sinew and humor upon his side of the argument, but his reasoning was very defective. Some of the bravest men the world has produced have been non-combatants, and some of the most heroic deeds in its history have been performed, not by the destroyers of their species, but by the healers and preservers thereof. There was not a more valiant work done in all the Crimean war, than that undertaken by Surgeon Thomson after Alma. There was not a more dauntless man in the whole Grand Army of Napoleon, than its surgeon-in-chief, Baron Larrey.

This gentleman, when attached to Kellerman's brigade in 1792, first exhibited his credentials as Mitigator of War in his invention of the Flying Ambulances, which bore the wounded rapidly away, instead of leaving them to linger on, as of old, in agony upon the battle-field. The employment of ambulances is not, however, at all times practicable, and even when it is so, there are dangers and difficulties in the path of the army-surgeon, such as can not be possibly imagined by us who live at home at ease, but must be described by one who has experienced them. In the *Memoirs of Baron Larrey*,* we possess perhaps the most trustworthy, as well as the most striking account of how it goes with the wounded, and that (for he ever tended friend and foe with equal care) on both sides, in the bloody arbitrament of war. History has long concerned herself with the victors, and the vanquished only, and not without reason;

since, to receive a severe wound, in the case of a common soldier, was, under the old régime, almost certainly to die. It was only the chiefs that were much attended to, or who "lived to fight another day" at all. Yet in Larrey's time, so much had these things been changed for the better, that he sent forth Napoleon from Moscow with more than one hundred thousand able-bodied men, who had entered that city, fatal as it was in other respects, with only ninety thousand combatants. The means, however, by which patients are recovered in warfare, are often strange enough, and the remedies applied not a little violent. In the woodless wastes of Egypt, the sick were warmed at night by fires which were made of the bones of the dead. When the army got to Cairo, it fell into the hideous embraces of the plague, whose only merit was that it extinguished, like death itself, all other diseases. When the plague ceased, fatigues and privations under a burning sun, excited liver-complaint, which degenerated into abscesses so terrible that it was sometimes found necessary to plunge some sharp instrument into the stomach, in order to give free course to suppuration. The lesser diseases of that Egyptian campaign were leprosy, caught from infected mattresses and unclean food, ophthalmia, scurvy, and elephantiasis. Dark, indeed, was the side of Bellona's shield which it was the life-long fate of Surgeon Larrey to contemplate. The personal safety, too, of this non-combatant was jeopardized in every engagement. His amputations were performed amid a shower of bullets, and in expectation of the charge of hostile cavalry. "Among the wounded was General Silly, whose knee was ground by a bullet. Larrey, perceiving that fatal results might ensue unless the limb was amputated at once, proposed amputation. The General consented to the operation, which was performed under the enemy's fire in the space of three minutes. But lo! the English cavalry suddenly near

* Renshaw. London, 1861.

their side. What then, was to become of the French surgeon and his patient? 'I had scarce time,' said Larrey, 'to place the wounded officer on my shoulders, and to carry him rapidly away toward our army, which was in full retreat. I spied a series of ditches, some of them planted with caper bushes, across which I passed, while the cavalry were obliged to go by a more circuitous route in that intersected country. Thus I had the happiness to reach the rear-guard of our army before this corps of dragoons. At length, I arrived with this honorably wounded officer at Alexandria, where I completed his cure.'"

On many battle-fields, the cold was so intense that the instruments requisite for the operations fell from the powerless hands of the army-surgeons; after others, nothing could be procured but horse flesh to make soup for the exhausted patients, while their only tureens were the cuirasses of the fallen. At Smolensk, where all supplies and stores had been burned by the retreating Russians, Larrey, fertile in expedients, discovered a hoard of archives, and substituted paper for lint, and the thick parchment for splints. His wounded were then upward of ten thousand in number, and almost all the town in conflagration. At Eylau, these poor fellows were well-nigh meeting with a second calamity, which would, without doubt have destroyed the whole of them. "While I was operating," says he, "or directing operations, I heard on all sides of me the most pressing appeals to me from the sufferers. To the doleful moans of these intrepid soldiers succeeded, after the operation, a prodigious and almost inexplicable calm, along with a kind of internal satisfaction, which they expressed by testimonies of the most lively gratitude. They appeared no longer occupied by their personal evils; they made vows for the preservation of our Emperor and the success of our arms; finally, they mutually encouraged each other to bear patiently the different operations which their wounds rendered necessary. It was in the midst of all the obstacles which a hostile locality and a rigorous temperature were presenting, that some of the most delicate and difficult operations were performed successfully. Just at the moment when a veritable consolation was diffusing itself in the soul of every wounded man, an unexpected ef-

fort made by the right wing of the enemy to outflank our left, precisely at the point where the ambulances were stationed, was calculated to spread trouble among these distressed men. Already some who were able to march had taken flight; others were making vain efforts to follow them, and escape this unexpected attack. We, however, were their prop and support; we were determined to die rather than to seek ignominious safety. I expressed forcibly to all the wounded who remained the resolution which I had taken not to abandon my post; I assured them that, whatever might be the result of this alarm, which to me appeared false, they had nothing to fear for their life. All the members of my own department rallied round me, and swore not to abandon me.

"Presently, an impetuous charge, purposely made upon the enemy which had been threatening us, in midst of dense whirlwinds of snow, prevented the event so dreaded by our wounded men. Calm was reestablished, and it became possible for the medical officers to continue uninterruptedly their operations. All the more serious wounds of the Imperial Guard and a great part of the line were treated and operated on during the first twelve hours; then only did any of the surgeons begin to take rest. We passed the remainder of the night on the ice and snow around the fire of the bivouac of the ambulances. Never had there been so hard a day for me: it had been hardly possible for me to restrain my tears in those moments when I was endeavoring to sustain the courage of my soldier-patients."

A more catholic hearted man than Larrey never breathed; a fellow-creature had only to need his professional assistance, and whether Englishman, Austrian, or Russian, he was his friend at once. He held that a surgeon had no enemies except disease and death, and on one occasion almost perished of a malignant fever contracted from some countrymen of our own who were prisoners to the French in Spain.

With the armies of his beloved master Napoleon, Larrey visited in turn almost every country in Europe, of each of which he has something novel to say, since his view of all things is taken from so unusual a stand-point; but the most striking of all his experiences is without

doubt his narrative of the campaign in Russia. During that awful expedition, the surgeon-in-chief of the Grand Army went on foot. Cold, he had convinced himself, was only the predisposing cause of frost-bite, and the heat which succeeds the cold, the real source of mischief. Those who rode, upon arriving motionless at a bivouac, experienced an irrepressible desire to warm themselves, and on approaching a fire contracted gangrene, in their half-frozen limbs. In all other countries through which the French passed as invaders, it was Larrey's custom, upon evacuating a town, to leave a letter for the medical chief of the enemy, commending to his care such of his own unhappy patients as were too ill to be moved; and in no case was this confidence found to be misplaced. But in Russia every town was set on fire before Napoleon reached it, and consumed almost to the last house before he departed. Where the Grand Army looked for abundance, and rest, and shelter, they found nothing but flames. The hope of reaching their great goal, Moscow, however, animated them to an extraordinary degree, notwithstanding that the four hundred thousand fighting-men who had crossed the Niemen were reduced to less than a quarter of that number.

"At length, on the fourteenth of September, on reaching an eminence in the road, the advanced-guard suddenly caught sight of Moscow. As all the battalions of the army reached that part of the road, they halted, and the sound of 'Moscow' reverberated through their ranks. It was a moment of intoxication. After a short halt, they continued their onward course; and as the old city of the czars of Muscovy became brighter and clearer, the joy of the French soldiers increased. Murat, at the head of the cavalry, galloped forward, and concluded a truce with the enemy for the evacuation of Moscow. The whole French army soon afterward began to enter the gates of that city. The French soldiers dispersed themselves through the town, and gazed at its novelties. The houses were richly furnished, the churches were profuse in ornament, and the palaces seemed stored with the wealth of ages. Afterward, some of them climbed to the summit of the Kremlin. From that spot, they looked down upon a city which in extent seemed as large as Paris, Vienna,

and Berlin together. Beneath them in survey, were fifteen hundred palaces, with gardens and parks, and thousands of houses of a perfectly new architecture, tiled or roofed with polished iron of various devices. From the midst of these abodes arose hundreds of churches and innumerable steeples. Conceptions the most eccentric, of Byzantine, Tartar, and Armenian architecture, had there raised edifices, with twisted columns in front of them, and also produced a variety of contour and painting. Many of the houses were of colored wood; but the colors were unmatched and incongruous. Then the silvered and gilded cupolas of the principal churches, in reflecting the rays of the sun, gave to this panorama much that was dazzling as well as new to French eyes. Commanding and overlooking all, by its gilded roof of immense height, and by its towers almost laden with steeples, with its walls carved or sculptured like garlands, the Kremlin, in its imposing grandeur, appeared like the father and protector of the old Muscovite city."

In this Kremlin, the citadel of the capital, the abode of the czars, which contained their treasure, the sacred images of the Greek religion, and the mortal remains of the sovereigns laid out in funeral chapels, adorned with gold and gems, Napoleon took up his quarters. His soldiers, who had long been strangers to a bed, that night slept on soft couches in mansions of the noble and wealthy. They were dreaming of enriching themselves by the spoil of those luxuriant but forsaken abodes, when the torches of the incendiaries—the felons who had been liberated from prison, and left behind for this dread purpose—were applied to the holy city. The gales of the equinox acted like a bellows on the rising conflagration. The polished steel roofs of the buildings soon became red hot, balloons of fire drifted to and fro, and the air resounded with the falling of walls and springing of mines. Napoleon clung to the spot as long as possible; but at length the increasing fury of the flames rendered it quite untenable, and he removed—not without great peril in passing through the burning streets—to Pétrowskoïé, a château of Peter the Great, about four miles from the city. For three days and nights, the fire raged, consuming the entire capital except the Kremlin, the

churches, and a few of the large stone houses. Napoleon surveyed the scene from his château, and was overheard by Larrey to exclaim: "This event is the presage of a long train of disasters." As soon as possible, the Emperor returned to the place where Moscow had stood. "The camps which he traversed," says M. de Segur, "in order to arrive at the Kremlin, offered a singular aspect. They were on thick and cold mud, in the midst of fields. Here the soldiers were warming themselves by igniting furniture of acacia, windows of handsome framework, and doors of rich gilding. Around these fires, on a litter of damp straw, which, was badly sheltered by some planks, one saw the soldiers and their officers, soiled with mud and blackened with smoke, sitting in arm-chairs, or sleeping on sofas of silk. At their feet were stretched or heaped up shawls of cashmere, the most rare furs of Siberia, and also stuffs of gold of Persia. Between the camps and the town, one met crowds of soldiers dragging or trailing their booty, or chasing before them as beasts of burden, moujiks bent under the weight of the pillage of their capital, for the fire showed near twenty thousand inhabitants, unperceived till then, in this immense city. They went to shelter themselves with the wreck of their goods near our fires. They lived pell-mell with our soldiers, protected by some, and tolerated or scarce remarked by others. There were even about ten thousand soldiers of the enemy. During several days, they wandered in the midst of us, free, and some of them still armed."

Having deferred as long as possible the evacuation of Moscow, on account of the loss of prestige which he knew must result from any retrograde movement, and despairing of any conditions of peace from Alexander, Napoleon commenced his retreat. The one hundred and three thousand men who yet remained to him carried with them an immense plunder, beside that famous and gigantic cross snatched from the tower of the great Ivan, which the Emperor fondly hoped to see erected on the dome of the Invalides at Paris. They were also accompanied by many French families who had long resided in Russia, but were now apprehensive of being left behind. The dreadful story of this retreat has been told again and again. Before the French

could effect their passage across the Beresina, the Russians arrived in enormous force, and began to fire upon "the division of General Partoureaux, the soldiers of which division immediately wished to cross the bridge all at once. The conveyances clashed with each other. Some of the unfortunate men were crushed, while others, losing all spirit, threw themselves into the stream; some opened a cruel way for themselves by massacring all who obstructed their passage. Shrieks of women, cries of despair, roar of cannon, noise of explosions, and a variety of sounds, were all heard together. A certain number, in the abyss of despair, sat on the banks half-stupefied, and, after gazing as if they scarce saw, died of prostration. There was throughout a frightful mixture of imprecations, of clashings, and of strugglings; thence arose indescribable disorder, and a breaking of the overloaded bridge. The Russian army approached, and with its formidable artillery tore the ranks of the French mob of soldiers." In this immense disaster, the surgeon-in-chief, after having crossed over with the Imperial Guard, "discovered that requisites for the sick and wounded of his countrymen had been left on the opposite bank. With equal humanity and heroism, he recrossed the stream; and hardly had he done so, when he was surrounded by a wildly excited crowd. He was almost suffocated in the midst of it. It is here that one may find proof of that unbounded affection with which Larrey had inspired the soldiers with whom he was serving. No sooner was he recognized, than he was carried with astonishing rapidity in the arms of the soldiers across the river. On all parts was heard the cry nearly in these words: 'Let us save him who saved us!'"

The sufferings of the remnant of the Grand Army became now extreme; neither rank nor nationality could be recognized in their diminished columns. Those rags which had been uniforms were scorched by the fires of the bivouacs, and their feet were wrapped up in bits of cloth instead of shoes and stockings. Even their very ages were confounded, for the beards of youth and age were equally whitened by the hoar-frost, and all went stumbling on in apparent decrepitude. So fatal was the cold, that of the twelve thousand men forming the twelfth

division of the army, all had perished between Wilna and Ochmiana save three hundred and fifty! "At Miedneski, the cold was so great that Larrey found it was twenty-eight degrees on the thermometer of Reaumur, which was suspended to his coat-button. It seemed a region in which all life died, death lived, for, as the army of skeletons passed onward, they observed numbers of dead birds, which, doubtless, in their flight toward the center of Europe, had been overtaken by the winter, and had fallen at once, stiffened by the cold, on the very track which the retreating French were now pursuing. The silence of their march was broken occasionally by the weak voice of some comrade as he sank never to rise, on the snow-clad earth." Even the Russians themselves fared little better. The one hundred and twenty thousand men of Kutusoff melted down to thirty-five thousand; and the fifty thousand of Wittgenstein to fifteen thousand. Nay, so benumbed and stupefied were these natives by the cold of their own winter, that they were incapable of distinguishing the French prisoners who marched in the middle of their columns. Many of these were so audacious as to attack isolated parties of Russians, and make themselves masters of their arms and uniforms, after which they would join the enemy's ranks without being detected.

Larrey's iron constitution endured all the hardships of this campaign without much detriment: the spirit was ever

willing with him, and the flesh was not weak. His moral courage, too, was fully equal to his physical. Long ago at Esslingen, when the officers of the staff complained to Napoleon of their horses having been shot by command of the surgeon-in-chief, he had been summoned to the Emperor's presence. "What!" said the latter, "have you ventured on your own responsibility, to dispose of my officers' horses for food for your wounded?" "Yes," answered Larrey, nor did he add another word to that monosyllable. For this reply, his master, who was not of the silver-fork school of sovereigns, created him a baron of the empire.

As no man ever merited honor and promotion more than Larrey, so none was ever less grudging the possession of them. The name of this non-combatant hero is engraved on the stone of the *Arc de Triomphe* with those of the illustrious soldiers of the Republic and the Empire. His statue stands in the Court of Honor in the military hospital of the Val de Grâce at Paris. His works, forming the connecting-link between the surgery of the last age and the present, are also themselves a monument. Finally, there is this noble record of him in the will of Napoleon his master, who had an eye for an honest man, although he could scarcely himself be classed in the category of such: "I bequeath to the surgeon-in-chief of the French army, Larrey, one hundred thousand francs. *He is the most virtuous man I have ever known.*"

From Chambers's Journal.

A U S T R I A N R U L E I N T U S C A N Y

UNDER THE GRAND DUKE LEOPOLD II., 1849.

IN the little town of Pistoia, a few miles distant from Florence, there lived, a few years ago, a respectable couple in humble life. Agostino Frosini was a servant in a gentleman's family, and his wife, Annunziata Sapoli, a washerwoman.

They had five children, one of whom, Attilio, was noted for his mild and amiable disposition. A favorite with all who knew him, he retained, at the age of sixteen, a purity, and almost childlike simplicity of heart and mind, which was

the more striking among a people whose character and intellect are usually developed at an earlier age than in races inhabiting northern countries.

In 1849, all Italy, from the Alps to Sicily, rejoiced in the hope of establishing constitutional governments throughout the land, of forcing their separate rulers to obey the existing laws, which they had arbitrarily set aside, and of driving out the Austrian, who not only had forfeited all claim to Lombardy, by breaking the conditions upon which it had been bestowed by the arbiters of Europe in 1815, but had likewise supported tyranny, political and religious, throughout the whole peninsula. The Grand Duke of Tuscany, Leopold II., who at first appeared to yield to the wishes of his people by granting them a constitution, fled, terrified at his own work, to seek aid from the very government which was most hated by his Tuscan subjects. He left Florence in March, 1849, but returned in June of that same year, under the escort of an Austrian army. The German soldiers entered Florence in triumph, wearing boughs of laurel on their caps; and having once established themselves in the country as the protectors of the sovereign, they were allowed full license to insult the Italians they had conquered by arms. If two or three Florentines were seen in the street conversing together, they were ordered to separate; if they sang, they were silenced, whilst the Austrian soldiery paraded the streets in bands, singing their national songs. One day, an unfortunate peasant happened to jostle an Austrian officer in Via Porta Rossa, one of the most frequented streets of Florence. He was knocked up against a wall, and forced to remain there, whilst the officer and the soldiers following him successively spat in his face.

But worse instances than these contributed to deepen the hatred of the Italian against the Austrian, and against that sovereign who had returned to the country and office he had abandoned with unmanly cowardice, through Austrian means. News had arrived of the victories gained over the Austrians in Hungary, which were hailed with joy in Italy; and a rumor having got abroad that the Austrian regiment in Pistoia was Hungarian, the people there hoped to find in the soldiers not only friends, but the

enemies of their enemies. One afternoon, Attilio Frosini was passing the bishop's palace, where the Austrian commander, Lieutenant-Colonel Francesco de Mayer, was quartered. The guard, who were partly Croats, wore the Hungarian uniform, and the lad saluted them as he passed with the words: "Long live Kossuth!" The sentinel replied, "Viva!" and Attilio, encouraged by this, repeated, "Viva Kossuth!" Three more of the soldiers had now joined the sentinel, and shouting "Viva, bravo!" beckoned to him to come nearer. No sooner was he within reach, than they surrounded and seized him, carrying him into the guard-house, where they informed him he was under arrest. Attilio at first remonstrated against his seizure, but finding his words vain, he lost all self-command, and broke out in invectives against the Austrian soldiers, their officers and generals, declaring he would tear down their flag, which was hanging in the guard-house. Upon this, the soldiers put him in chains, giving him repeated blows with their guns.

Shortly afterward, Lieutenant-Colonel de Mayer, with the officers of the regiment, returned to the palace, from which they had been absent when the boy was arrested. After listening to the corporal's report of the affair, the Lieutenant-Colonel ordered the soldiers to be drawn out, and Attilio Frosini to be beaten a second time by blows from the but-end of their guns. His cries were heard at a considerable distance; but, not satisfied with this, the Austrian officer ordered him to be conveyed to the fortress, to which he was driven with blows and insults by thirty Croats, and kept there all night. On the morning of the twenty-ninth of June, an express was sent to the commander-in-chief resident at Prato, informing him of what had occurred the previous evening; but an officer of the garrison, half of whom were Tuscan, had likewise sent word to the prefect of Pistoia, Cavaliere Rosselmini Gualandi, warning him that Attilio's case would be tried by a military tribunal, and was one of life or death. The prefect accordingly started early for Florence, to lay the affair before the minister of the Grand Duke, and entreat his interference. Before leaving Pistoia, however, he addressed the following letter to Lieutenant-Colonel de Mayer:

"MOST ILLUSTRIOUS SIR : I have been informed that a youth of this city, the son of a servant of the family Marchetti, was arrested yesterday evening, accused of using means to induce some soldiers of the troop commanded by your Excellency to desert, and that he is at this present moment under trial by a council of war, and, in case of being found guilty, that he will be subjected to the extreme rigor of martial law. I consider it my duty, in the interest of the authority I represent, formally to signify to you, that without prejudging any other question which may arise as to what are the cases amenable to martial law, it is not possible in any way to apply it in a case which has not been formally declared punishable according to martial law and by the forms of an extraordinary tribunal; but this case can only be tried in the terms and in the established forms of Tuscan laws.

"I can not doubt that, while I am engaged in acquainting the superior government with this urgent case, and await my instructions from thence, that whatever may be the sentence pronounced, the execution will be suspended until the required instructions arrive. I have the honor, etc.

"CAV. ALESSANDRO ROSSELMINI GUALANDI,
"Prefect."

That the minister could not or would not interfere, may be inferred from what followed; but the story may now be told in the words of the priest, Doctor Vicenzo Marraccini, of Pistoia, who attended the poor lad from this time to his last moment:

"Two o'clock was striking in the afternoon of the twenty-ninth June, 1849, when an Austrian soldier, guided by a man of the name of Valente Chiappini, knocked at the door of my house, situated in the Via del Corso, near the church of Santa Maria Nuova. Going to the window, I saw Chiappini, who, pointing to the Austrian soldier, said: 'This gentleman wants your attendance on a sick man in the fortress.' I immediately hastened down to the street, where I found the Austrian soldier alone, as Chiappini had departed.

"On my way to the fortress, I asked the soldier who the sick man might be, and what was his complaint; but his only reply was, that *he did not know—he was told there was a sick man.* 'Tell me, at least,' I added, 'if this sick man is one of your comrades, or one of our soldiers, for I suppose you know so much.' But he only repeated what he had said before: 'I was told there was a sick man, and that I was to fetch a priest.' We

had by this time reached the external gate of the fortress, and passing through, he led me to the interior, bidding me turn to the left.

"Here I found all the Austrians drawn up under arms, but hardly noticing them, I turned to my guide, believing him still beside me, to desire him to lead me at once to the sick man; but he, like Chiappini, had disappeared, without telling me he was leaving me.

"Whilst I was looking round in search of him, one of the Austrian soldiers present advanced, and requested me to wait. I bowed my consent, and approaching a Tuscan, of the name of Antonio Sarto, and who, with several other Tuscan soldiers, was quartered in the fortress, I asked him what all these Austrians were about, and why they were under arms.

"He replied with much agitation: 'Reverend sir, they are about to commit a very brutal act, and, it appears, you are required to be present.' As I was totally ignorant of what had occurred, I could not at the moment comprehend the import of his words, and I again inquired: 'But have I not been called here to attend a sick man?' 'Exactly so,' he replied. 'I tell you it is a very brutal act; and the supposed sick man is, I believe, there in the midst of them.'

"That instant, I heard the sound of the drum; and the Austrian soldiers filing off in two lines, I perceived a young lad walking between them, chained hand and foot, and followed by twelve Austrians, who were conducting him toward the inner gate of the fortress. As soon as they had passed, an officer, either a major or captain, advanced toward me, and, without further preface, said: 'I consign him to you.'

"At the sight of that miserable-looking boy, and the sound of these brief but alarming words, I felt my blood freeze in my veins, and a secret presentiment suggesting the idea of death rise up in my mind. I could have thrown myself at the feet of the Austrian officer, but I only said: 'I will not fail in performing the duties of my sacred office; but for the love of Jesus, I entreat you to spare the life of that boy.' 'Who knows!' he replied; 'the matter has been referred to the Colonel, who is at Prato. All depends on him.'

"So saying, he took me by the arm,

and accompanied me to the gate of the fortress, when, making me a sign to enter the guard-house, he left me.

"In the center of the room, a corporal sat astride on a chair, leaning the elbow of his right arm on the back, and his head on his hand. Three soldiers mounted guard, two at the door of the room, and one near the window. All this armed force was placed there to watch that poor boy, as if he had been a wild beast. The prisoner had thrown himself on his face upon a bench, sobbing violently. As I have said before, I was ignorant of what occurred; I did not even know who he was, and I was therefore uncertain how I should approach him, so as to alarm him as little as possible.

"I blew my nose, and starting at the noise, he turned round trembling, and looked me; but he no sooner perceived who I was, than he threw himself weeping upon my neck. At this eloquent appeal, I could do no less than embrace him in return, and clasping him in my arms, without uttering a syllable, we both sank down upon the bench. The poor lad was bathed in perspiration and tears, whilst his face was hot with fever; but after a few moments he disengaged himself from my embrace, and, half-suspicious, half-terrified, he asked me: 'But are you the priest Marraccini?'

"'Yes,' I replied, stroking his cheeks, 'I am the priest Marraccini; you need not be afraid, my son.'

"'Bravo! you have done a good act in coming to me.'

"'I came solely on your account; therefore, tell me all you want. But first, your name; for I do not think I ever saw you before.'

"His lips relaxed into an ingenuous smile, as he answered: 'My name is Attilio. I am the son of Agostino Frosini. You know him; he is a servant in the house of the Marchetti family. My mother is the washerwoman. Do you not know her—down there, on the way to the theater? I was at school at Master Tozzelli's. 'But yesterday,' and he lowered his voice, 'I was seized down there by the bishop's palace, and they brought me here.' And he burst into a fresh flood of tears.

"Hardly knowing what to say, I exhorted him to have courage, and trust in Jesus, assuring him there must be some

mistake; and I then asked him if he was in want of any thing.

"'I am so thirsty,' he said.

"I beckoned to the corporal, who had never moved from his position; he went out, soon returning with a flask of water. Attilio carried it so hastily to his mouth, that I was only aware of the neck of the flask being broken, when I perceived the blood from his lips mingling with the water. I asked for a cup, but was refused; and poor Attilio, whilst quenching his burning thirst, had frequently to pause to take breath, swallowing drop by drop, till it went to my heart to see him.

"Soon afterward, he said he was very hungry; adding, 'I have not tasted any thing since yesterday evening.' I told the corporal, who went out, and returned with a loaf of bread, but which was more black than white. 'For the sake of charity,' I asked, 'allow him a few mouthfuls of soup or a little broth.' The corporal again left the room, and returned with the answer that it was not allowed. I myself then went to the captain, who all this while was standing outside the fortress with the other officers, and asked him the favor, telling him I would go and fetch the broth; but my entreaties were vain, and I was obliged to return disappointed, and with nothing but that miserable loaf. If drinking had been difficult, eating was still more so. The bread was so hard that I asked for a knife to cut it, but this was likewise denied, and I was obliged to use both hands to break it against the bench.

"While Attilio was swallowing a few crumbs, I endeavored to console him; his answers, which proved the innocent and ingenuous nature of this boy, who had hardly passed sixteen years of age, touched me so deeply that I could scarcely restrain my tears, and in order to conceal them from him, I looked round the room until my eyes accidentally fell on an image of the Virgin which hung against the wall. Attilio, who watched my every movement, instantly perceived my eyes were fixed on something, and asked me what it was.

"'I am looking at that image,' I answered; and thinking it might be of use in keeping his thoughts on sacred subjects, I climbed on the bench, took it down, and bade him look at it, and tell me who it represented. He gazed at it for a

moment, and then exclaimed: 'Do I know it? It is the holy mother of Jesus.' Then covering it with kisses and tears, he laid it on his knees. After a few moments, he spoke again: 'I too am under the protection of the Virgin. Do you ask if I remember her image? It was only uncovered a few days ago, when I made my general confession.*'

"Well done, Attilio, I answered; 'you give me comfort. You have already told me you wish to do right, but as you also tell me you have made your general confession, perhaps you would like now to confess again. If you would like to do so, tell me where your confessor lives, and I will at once go and fetch him.'

"My confessor is Bartolini, the sacristan of the Church della Madonna; but I do not wish him to come here now, because—in this state'—and he raised his hand to show me his chain—'I am ashamed! I would rather confess to you. I should like to have my crucifix, which is at home, but it is a long way off.'

"I am quite ready to hear you confess,' I said, 'and to fetch your crucifix; but your house is so far off, that I should have to leave you too long alone. Let me rather go to mine, and fetch my own.' Attilio acquiesced, and assuring him I should soon return, I left him.

"As I left the fortress, I found the Austrian captain, and begged he would inform me how I was to regulate my behavior toward the prisoner.

"I can not tell you,' he replied; 'we are waiting the arrival of the sentence from Prato.'

"For charity's sake, tell me,' I continued, 'is there any danger of a capital sentence, that I may prepare him for the great change? for, should you not believe the affair so serious, I would not unnecessarily alarm him.'

"But it is precisely because the chances are such that we sent for you. All, however, depends on the general. Act as you think best.'

"My sad suspicion that the cup would be bitter, and that Attilio would have to drain it to the dregs, was thus confirmed, and in a painful state of agitation I hastened home in search of my crucifix, and re-

turned to the fortress. Five was striking as I reëntered the guard-room. I found Attilio where I had left him, seated on the bench, with the image of the Virgin laid upon his knees. The corporal and the three Tuscan privates who had mounted guard before had been removed, and exchanged for the same number of Austrians. As soon as he saw me, he exclaimed: 'Come here; it seems an age since you went. The soldiers who were here before' (and he lowered his voice) 'whispered to these, and went away. I have had such a fright! When they let me out, I will go to your house. Have you brought me the crucifix?' He took it from my hand, and after examining it, said with a smile—'It is just like my own;' and then kissing it, and unbuttoning his waistcoat, laid it on his breast, crossed his arms, and remained silent.

"After about a quarter of an hour, he raised his face, and glancing round the room, fixed his eyes on mine without speaking, upon which I said: 'I did not wish to distract your thoughts, and have therefore kept silence, as I concluded you were meditating upon the confession you intend making to me.'

"True,' he replied; 'and you will do me a kindness by allowing me now to confess.'

"I rose, and requested the corporal and his three soldiers to leave us alone for a short time, but received no answer. I then asked them to retire to the further end of the room, as they had heard the prisoner express his wish to confess; but none of them moved. Attilio, who had borne with meekness the brutality with which they had denied him every bodily comfort, could not resist a moment of despair at this denial of that consolation he needed for his soul, and let his head drop between his knees. But raising his face again, he took my hand, and led me between the bench and the wall into a corner of the room.

"Gentle and resigned to ill-usage, he was about to kneel, when I raised him up, and, placing him beside me on the bench, drew my arm round his waist, and laid his head on my shoulder, so as to enable me to hear him without the danger of being overheard by these four inexorable soldiers; and, with the crucifix in his hand, the poor boy began his confession.

"Six had struck when he finished, saying to me: 'I do not remember any thing

*A ceremony of the Roman Catholic Church, which had been performed by the people on the ninth and tenth June, 1849, on an occasion when an image of the Virgin, supposed by them to be peculiarly holy, had been uncovered.

more; but, before giving me absolution, let me think awhile, lest I should have forgotten something, for I seem hardly to know where my head stands.' Saying this, he pressed his forehead and temples with his hands. As he uttered these words, I felt a cold sweat break out over all my limbs, and an agonizing sensation, in the thought that I could neither say nor do any thing to relieve him. I could only add: 'My poor son, how thou dost suffer!' And whilst his head sank on my shoulder to find ease from pain, he gradually fell into a quiet slumber.

"The bell striking seven, woke him from this angelic sleep. Attilio opened his eyes wide, and raising himself, recognized the place he was in, and recollected his miserable condition; he then gave way to a fresh burst of tears.

"When he became calm, I left him for a little while, assuring him I would soon return. Again presenting myself to the captain, I asked him if the sentence had arrived. His answer was the same as before, and therefore with my sad presentiment stronger than ever, I returned to Attilio.

"I spoke to him of the instability of human affairs, how short and fleeting is this miserable life, and how happy and blessed eternity. I exhorted him, if it ever should be required of him, to resign his life, to die for the love of Jesus, and to pardon his enemies.

"Then, he exclaimed, 'they intend to murder me; they will put me to death! O my father! O my mother and brothers!'

"Attilio, they may not still condemn you to die; but if Jesus wills it, to lead you to heaven—you have promised to do your duty—you will bear even this with resignation, will you not?"

"Yes, he replied, bursting into a fit of sobbing.

"As it struck eight, we recited together the *Angelus Dominus*; he requested to confess again, and I again gave him absolution. After this, I asked him to allow me to go home, to which he quietly consented, but begged me soon to return.

"I hastened to the captain, and for the third time asked if he had nothing positive to tell me, informing him that I was on my way home, but would soon return, and remain all night, if necessary. He told me I might go, that the sentence might not arrive for some little time, and

that if I was wanted, he would let me know.

"At a little after nine, Antonio Sarti, sergeant of the Tuscan division of veterans, arrived at my house to summon me to the prisoner. He led me at once into the interior of the fortress. The Austrian captain and the officers were no longer standing at the gate. I found poor Attilio in an open space below, leaning against the wall, his arms crossed on his breast, and his eyes raised to heaven. He looked like an angel, by the silvery light of the moon. His chain had been removed. Ten or twelve Austrian soldiers, ready armed, formed a half-circle round him; the rest, as in the daytime, were drawn up along the sides of the square.

"As soon as I approached him, Attilio asked: 'Is it the priest Marraccini?'

"Yes, it is I.'

"Oh! come and stand beside me; do not leave me again. Look where they have brought me!'

"Courage, I answered, 'my dear son—courage!' and in order better to support him, I took his hand, and passing my arm round his waist, pressed him to my side.

"At beat of drum, the soldiers filed off in two lines, and we were ordered to advance between them—the twelve soldiers who had formed a half-circle before us now falling in behind. When we reached the center of the square, we were ordered to halt. The line of soldiers drawn up on the left then opened, and we discovered all the officers, with their captain, standing round a little table. One of them advancing a few steps toward us, said: 'Attilio Frosini, your sentence has arrived. I will first read it in German, and then translate it to you in Italian.'

"He retired to the table, took up a paper, and holding a lantern in one hand, read its contents aloud—first in German, and then in Italian. It was as follows: 'Attilio Frosini, you have been found guilty of having attempted to induce two of our men to desert, and you are condemned to die by hanging —'

"God's will be done,' interrupted Attilio.

"But, continued the officer! 'this being impossible to execute, your sentence is commuted, and you are to be shot. Do you understand?'

"May the will of God be done,' repeated Attilio.

"His straw hat, which they had ordered him to take off, now fell from his hand. I stooped to pick it up, and, as if he feared to lose me again, he laid hold of the collar of my coat. As I rose, I put his hat on his head for him, took his hand, and assured him I would remain with him to the last.

"We again heard the sound of the drum—those preceding us moved forward in a march, and we two, always between two lines of soldiers, and with twelve more following us, proceeded, as ordered, toward the little gate which opened on the platform leading to the outer walls of the fortress.

"The drums again beat. The two lines of soldiers stood still, the officers with the captain advanced, ordering Attilio and myself to follow. We were immediately surrounded by the escort of ten or twelve soldiers. As we passed beneath the gate, I remembered the crucifix, and I took it from Attilio's breast, where he had replaced it after he had confessed. As I gave it into his hand, one of the soldiers of the escort asked me what I was about.

"*'You need not be afraid,'* I said. *'Look at it; it is the image of the Saviour, whose eyes can pierce even this darkness.'*

"As soon as we reached the platform, Attilio was ordered to advance a few steps, and turn his face toward the little gate which we entered. The soldiers of the escort were drawn up there, with the captain and officers beside them.

"One of them now approached Attilio, and offered to take off his waistcoat; but Attilio would not allow the soldier to touch him, and turning to me, gently asked me to help him. He was next ordered to take off his hat and cravat. I took them off, and threw them, with the waistcoat, at the feet of the Austrians. They told him to kneel down, and approached to bind his eyes. But here I interfered, and turning to the captain, said: *'I desire to be left a moment alone with this unhappy boy, for the duties of my sacred office.'* I did not wish to detain them above a minute, for I should only have prolonged his agony. The captain accordingly ordered the soldiers to fall back, saying that the sentence should not be executed until I had moved from beside the prisoner.

"I knelt down, and with a few words which Jesus alone could have placed upon

my lips in that moment of anguish, I exhorted him to be resigned, and to lay down his life in the sure hope of immediately being with Jesus in Paradise; I urged him to forgive his murderers; and Attilio pronounced their forgiveness aloud. We repeated together the words, Jesus, Joseph, and Mary, and then embraced. He pressed my hand whilst uttering these holy words: *'God reward thee—I recommend my soul to God.'* They were his last.

"I rose, and then, O God! what a moment! I stepped on one side, and with one hand pointing to heaven, I raised the other in the act of blessing, saying: *'In the name of Divine Omnipotence, and Justice, I absolve thee of thy sins.'* The Austrians' reply to these words was an explosion like thunder. We both fell to the ground—Attilio dead, and I in a faint, from whence a false report arose that I had been wounded.

"When I recovered, I found myself outside the fortress, and I heard ten o'clock striking. The Austrian captain and the officers insisted on accompanying me home. When I reached my door, my crucifix was restored to me. The silver setting and the lower part of the cross were blackened where the powder had struck it. I preserve it as a precious relic, with the last words of Attilio: *'God reward thee—I recommend my soul to God.'*"

With these words, the account of the priest Marraccini ends. The following day, he visited the mother of the poor boy, and found her in a state bordering on distraction. She, however, survived her son six years; but his father went raving mad, and died in the lunatic asylum of Florence, in 1857.

The formal notification of Attilio Frosini's crime, and its punishment, was published in the following words, by Lieutenant-Colonel Francesco de Mayer:

"Attilio Frosini, native of Pistoia, aged seventeen years, having been convicted by eye-witnesses, and by his own confession, of having been guilty of the crime of illegal attempt at enlistment, [he was only sixteen years of age, and had just seventeen quattrini* in his pocket,] has been condemned to be shot by the sentence of a court-martial. The execution took place that same day at nine P.M. The crime of illegal

* A quattrino is about half a farthing.

attempt at enlistment was committed upon the Austrian troops, who were therefore under the necessity of executing the sentence.

"FRANCESCO DE MAYER,

"Lieutenant-Colonel.

"PISTOIA, 1st July, 1849."

Notification of the sentence of death, placarded on the walls of the city of Pistoia:

"Attilio Frosini, a Pistoian, convicted of, and having confessed himself guilty of, the attempt to induce two Austrian soldiers to desert, and to fight for the so-called cause of Rome, besides uttering repeated insults during his examination against the imperial and royal troops; against their commander-in-chief, Field-marshal Radetzky; and against the colors of the regiment of the Archduke Francis Charles, thus exhibiting a depravity which deprived him of all claims to consideration, has been, by the sentence of a court-martial, condemned for the crime of illegal attempt to enlistment, to be hung. All are aware of the gravity of such a crime, as few are ignorant of the spirit of anarchy and hatred of the legitimate government cherished by a large number of the inhabitants of the city of Pistoia—a spirit of anarchy and a hatred which has recently led to the assassination of the notary Vincenzo Piccioli,* [who never was assassinated.] As a salutary means to intimidate the wicked, and as a warning to all, be it publicly known that the said sentence was executed on the twenty-ninth day of the past month at Pistoia, and that in the absence of the hangman, the prisoner was shot.—Imperial and Royal Colonel in command of the Regiment of the Archduke Francis Charles. WEILER.

"PRATO, 2d July, 1849."

To the honor of the inhabitants of Pistoia, be it told that neither menaces nor bribes could induce one of them to placard this iniquitous sentence on the walls of the town, and finally the Austrian commander had to resort to an agent of the lowest description.

* Vincenzo Piccioli was a spy, who had received, as a reward for his services, the office of Protocolli Notariali for Tuscany. He continued his office of spy until the police were disbanded, and his house was the nocturnal haunt and focus of men of his class and occupation. During the absence of the Grand Duke, the liberal party in power let him alone; but as soon as the Grand Duke returned, he hastened to offer his services to the Austrian general, with a list of the inhabitants of Pistoia accused of republican opinions. He went about publicly with the Austrian officers, and even openly pointed out to them such of his countrymen, who might be put on the list of suspected persons. One night, returning home, he was slightly wounded by an unknown hand. Far from having been killed, he asked and obtained leave to quit the country, and eight years afterward, repassed the Alps, and returned home.

The body of Attilio Frosini was so carelessly buried, that a few days later, one of the elbows was seen protruding from the earth. A man of the name of Angiollo Cottino, employed within the fortress, had some lime thrown on the spot, to prevent the body being devoured by dogs, which was the more probable, as almost every Austrian had his dog with him. Cottino twice attempted to set up a wooden cross to mark the spot, but it was each time removed by the Austrians. He finally painted a red cross on the adjoining wall.

On the twelfth June, 1860, when Leopold II. had been again obliged to leave Florence, after his attempt to fire upon the city, and when liberty was restored, with the hope of a new era, under a new sovereign, and with a united Italy, Baron Bettino Ricasoli, then governor-general of Tuscany, gave permission for the mortal remains of the youth Attilio Frosini, who had been shot by the sentence of an Austrian court-martial, to be disinterred, that they might receive Christian burial. Accordingly, in the presence of the priest Marraccini, and of eleven of the magistrates and principal persons of Pistoia, on the evening of the twenty-eighth June, 1860, search was made in the ground near the spot indicated by the red cross painted on the wall; and the bones having been found, they were wrapped in a linen cloth, and placed in a wooden coffin. Conveyed to the chapel of the fortress, the remains were next consigned to the care of the commander, until the funeral rites were prepared. On the second July, the coffin, covered by a rich pall, and surmounted by the crucifix he had held to his lips at his death, and which was now covered with wreaths of flowers, was borne by the members of the Confraternity of Mercy, and followed by an immense concourse of people, to the church of Santa Maria Nuova, in Pistoia. A funeral oration was pronounced over the grave by the priest Marraccini, whilst the inhabitants of Prato, from whence the sentence of Attilio Frosini's death had been sent, now sent their token of sympathy, in a crown of flowers, to be laid on the grave, and a letter in the following words, addressed to their fellow-countrymen at Pistoia:

"PRATO, 2d July, 1860.

"INHABITANTS OF PISTOIA: On this day, when you gather to the sepulcher the sacred mortal

remains of Attilio Frosini, who, eleven years ago, fell an innocent victim, in the flower of his age and hopes, to German vengeance, we, the undesigned, offer you, in the name of the entire city of Prato, a crown of flowers, begging you to place it on the sepulcher of this Italian martyr. It is the intention of the city of Prato, upon the sad anniversary of the cruel death of Attilio Frosini, annually to renew this humble offering, which, whilst it attests our remembrance of this sacrifice of the life of your fellow-citizen, will likewise be a solemn protest against the many and unheard-of cruelties committed against this sacred land of Italy by the iniquitous and expiring House of Hapsburg," etc.

Inscription on the tomb of Attilio Frosini: "At the age of sixteen, this gentle and innocent youth could not escape the ferocity of the Austrian. Attilio Frosini, contrary to all law and justice, and to the horror of this city, was shot on the twenty-ninth June, 1849. God, who vindicates the oppressed, laid low the atrocious foreigner at Solferino.—The people of Pistoia, to perpetuate the shame of his murderers, removed the ashes of the martyr,

on the second day of July, 1860, from unconsecrated earth, to this sacred spot. We confide this victim of the insulting destroyers of our independence, to the pious and patriotic love which has, through blood and suffering, reconquered the national flag."

Over the doors of the church are inscribed these words: "To the ashes of Attilio Frosini, sixteen years of age, who, though without arms, and obedient to the laws, was, by an Austrian council of war, with inhuman ferocity, thirsting for Italian blood, sentenced to death. The bullets of the barbarians pierced his young breast on the twenty-ninth June, 1849. Pistoia was then panic-struck at the enormity of the crime, but now, having reconquered her liberty, she raises this memorial of the wicked assassination; and as some reparation to the insult offered to her laws, she here bestows on him this solemn and sacred sepulture.

"2d July, 1860."

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A DAY OF ARCTIC ADVENTURE.

• BY DAVID WALKER, M.D., F.L.S., M.R.I.A., F.R.G.S., ETC.

(Late Surgeon and Naturalist on board the Fox, in the Search for Sir John Franklin.)

THE morning of the twenty-sixth May, 1858, was bright and lovely; the sun was reflected from floe, iceberg, and snow-capped mountains, as we entered Disco Bay. The surface of the water was as smooth as a pond—not a breath of wind—our sails hung loosely in their brails, and we found it necessary to get up steam. Slowly we passed along the coast, threading our way among hundreds of icebergs, whose varied proportions and fantastic shapes added to the beauty of the coast scenery: many of these ice-mountains were aground; others were borne quietly

by the current to be drifted through Davis' Strait to the southward. One, very majestic in its appearance, slowly passed our ship; it was three hundred and eighty feet high, square-topped, solid, and massive, its huge sides caverned and eroded by the ceaselessly active element in which it glided, and which, like the Promethean vulture, constantly gnawed at its vitals. We steamed close to another, which, as we approached, seemed to shake with some internal convulsion; the immense mass rocked and groaned, then reared itself up, breaking into vast

fragments as it toppled over: very fortunately the noise it made warned us to give it a wider berth, else we might have received damage from some of the numerous pieces. This disruption was caused by the mass having become, as the sailors say, "top-heavy," the water having eaten away and dissolved the base; and the upper portion gravitating downward, the mere wave of the ship was sufficient to excite the latent elements of destruction; the report of this disruption was louder than that of a small park of artillery simultaneously discharged.

The coast along which we passed was picturesque in the extreme. The main body of Disco Island is composed of terraced trap of tertiary volcanic origin, its average height being about three thousand feet; the summit is covered with the jökler, or the temporary fast ice-mass of the country, which breaks off at intervals of about twelve years. The sun was shining upon the sides of the mountains facing the sea, which, with their dark brown masses and indentations of the deepest black, and the summit covered with a cap of glistening snow, might not inaptly be compared to an immense bride-cake. The upper fifteen hundred feet or so of these mountains seemed almost perpendicular, their surface broken only by the ravines, which were occasionally seen, or by the conical stream of *détritus* which filled the small hollows. Here and there a thin white zigzag line showed where the sun's rays had thawed a miniature cascade, which leaped and bounded down the immense wall, furrowing the rock and aiding the elements in their disintegrating action. The lowest portion of the coast—that nearest the sea—was composed of sandstone, red and yellow, with an occasional spit of sand running a long way into the bay, the accumulation of grounded ice and stranded icebergs.

All morning we steered our course among the bergs, small pieces of floating ice often coming foul of the ship. As we rounded Flakker Point, the surface of the sea was covered with myriads of eider-ducks, which, as we neared them, rose in thick clouds to settle down a little further on, again to be disturbed as we approached. Entering the Waigatt, we crept along the shore, our purpose being to anchor off that part of the coast where coal-beds crop out to the surface, about

midway up the strait. The dark lines of coal contrasted well with the thicker bands of sandstone, so that it was not difficult to identify the spot; and all our spare boats and men were at once sent off with pickaxes and shovels to bring on board this, to us, precious material.

The Waigatt Strait is about eight miles wide, and separates Disco Island from the continent of Greenland—the island appearing as if it had been broken off and towed a few miles away from the mainland. The mountains on each side rise to a height of three thousand to four thousand feet, and are either composed of basalt or granitic rocks. This strait is one of the "*Anoatok*" of the Eskimos, and is truly, as its name signifies, "a wind-loved spot," for the high land on each side of the narrow strait converts it into a funnel, through which the wind sweeps with dangerous velocity.

We had visited the place the previous year, when I had been foiled in attempting to reach the summit of one of these mountains: this time, however, I was determined to succeed, and proceeded at once to equip myself for my journey. The temperature of the air was just hovering about freezing-point as, at eight in the evening, I started from the ship. Thick strongly-nailed boots on my feet, an alpenstock in my hand, a geological case, and a barometer slung across my shoulder—these were my accoutrements. The men were hard at work picking out the coal as I landed on the ice-foot, or narrow belt of ice, which, adhering to the land for a longer time than the other ice which covers the strait in the winter, formed a natural landing-stage, rising and falling with the tide. Close to the shore were the seams of coal, which could easily be worked for a short distance in, as the layers were almost horizontal. To scale these beds was my first object, and at one hundred and fifty feet I reached a gradually ascending plateau, covered with the *débris* of the mountain just above me; here and there a huge piece of rock showing the origin of the smaller ones, among which I obtained many good specimens of chalcedony and cornelian, with numerous pieces of chabazite and other zeolites which filled the amygdaloid cavities in the trap. Scattered among these rocks were a few—but very few—patches of grass, where an occasional saxifrage or poppy was struggling into exist-

once. Scrambling over these rock pieces, I reached one immense fragment, some one thousand tons in weight, which, like an avalanche, had been torn from the parent mountain mass. In one of the hollows of this plateau—of which there were many covered with snow, that had not yet disappeared—I saw some ptarmigan feeding, which, in their snow-white winter dress, could, with difficulty, be distinguished from the surface over which they ran. Two or three hares were quietly nibbling at the grass, eyed from a distance by a hungry fox, who was evidently making up his mind to have one of them for his supper. The ascent over these rubbly stones was by no means easy, and many times I halted before reaching a spur about sixteen hundred feet high, where I rested for a while, and where the first of a series of panoramic views burst upon me. Beneath me was the strait, with its navy of icebergs slowly surging along—some, the leviathans of the deep, moving in calm stateliness, while others, like tiny gunboats, seemed dispatched on some special service as they passed rapidly to and fro. The ship lay idly swinging to the tide, and the hum of the men at work below could plainly be heard. Around me lay the *disjecta membra* of many a conflict, in which time and the elements had been engaged with one of our emblems of eternity—the everlasting hills. On the opposite side of the strait was varied mountain and valley scenery, which would have ravished an artist, and above me rose heavenward twenty-five hundred feet of perpendicular rock capped with snow.

Crossing this arm, I lost sight of the ship; and now commenced the real peril of the ascent, which began, somewhat anomalously, by a descent into a ravine about three hundred feet deep and very narrow, the sides clothed with broken rock and small stones, into and among which the foot slipped. Quick but dangerous was the descent, which I happily accomplished without accident; but to get up the other side presented an unforeseen difficulty, and my progress resembled that of the unfortunate who slipped three feet back for every one taken forward, and I was unable to walk backward. However, by taking a zigzag course, I succeeded, after an hour's hard work, in reaching the top of the ridge. Following this upward, I found myself stopped at a height of two thousand feet, by the per-

pendicular face of the mountain, which was formed here of columns six to eight feet high, while others, lying horizontally, were much longer—reminding me of the somewhat similar formation seen at the Giant's Causeway. Without attempting to climb this precipitous face I turned westward and encountered a steep slope of snow, which apparently led up to within a few hundred feet of the jökler-bedecked summit. Congratulating myself upon this easy pathway, cheerfully and carelessly I stepped on the bank, and suddenly found myself rolling some fifty or sixty feet down its deceitful face. Exposed to all the wind and frost of the winter, this snow had been caked hard and smooth; and, instead of having improved my prospect, I seemed in a worse plight than before. Fortunately my geological hammer had a broad cutting edge at one end, which in an extremity could be used as a hatchet; so cutting, or rather gouging out steps, I succeeded, by the aid of the alpenstock, in reaching the upper end of this treacherous slope: the last fifty feet were the worst, as the ice was almost as hard as rock and the incline very steep; by dint of perseverance, however, I managed to reach the face of the cliff, having ascended in all three thousand three hundred feet. One glance upward seemed quite enough—the ascent appeared utterly impracticable, but I was determined not to be daunted by any obstacle; for were not my feet resting on rock which I well knew no Eskimo or Dane had ever reached, and was I not a Briton? So, bracing myself well up and gathering all my courage together, like a pilgrim, "I addressed myself to the ascent." Climbing through a narrow gorge, I succeeded in progressing about fifty feet, very much as a sweep climbs a chimney. Here I would fain have got rid of my barometer and geological case, which were sadly in my way; but, without the first, I had no means of ascertaining the height of the mountain should I reach its summit, and I was very reluctant to abandon my specimens. On emerging from this chasm, the rock I had next to climb was very steep, and worn smooth and polished by the action of a small summer stream that trickled on it, presenting no holding-place at all. The lower part seemed a trifle rougher than the rest, and over this I essayed to ascend, the way becoming steeper and smoother as I crawled

along, till at last I was obliged to rest by the whole surface of my body. Slowly I wriggled myself upward by the palms of my hands and my breast, pushing my alpenstock before me; once it rolled back, striking me on the face and hands, almost causing me to loose my hold, which would have been sudden destruction. Now and then I grasped madly at small pieces of jutting rock, which at another time I should never have dreamed could give any support; but the convulsive clinging made up, I suppose, for the deficiency of the holding-places. At last it seemed that I could get no further, and I hung suspended from the rock. Oh! how slowly the time seemed to drag, and yet a whole existence was crowded into those moments of suspense, each of which I fully expected would have been my last. But the love of life was strong; and, after a few more electric despairing efforts, I found myself clinging to a steep ledge which bounded this water-channel—but to this day I could not describe how I got there. I turned over, and saw the alpenstock on the face of the rock—and there it remained. The remaining part of my way was still dangerous, loose pieces of rock often breaking under my feet and thundering down the mountain side in a painfully suggestive manner, and I had to test every stone and ledge before trusting it with the weight of hand or foot. At last I reached the jökler which crowned the summit; this I could not ascend, as no hammer could gouge out steps in its adamant hardness: so on a shelf of rock at its base I rested and thanked God for life.

I remained about an hour and a half on the summit to wait till the fluctuations of the barometer had ceased, when I found that the mercury had fallen some five inches; the mountain therefore, was thirty-nine hundred and fifty feet high. It was now a quarter to one in the morning as I looked across the strait to the northward, yet high above the mountains shone the sun. Midnight of the clock was no midnight to him! The mountain-tops from the other side of the strait reflected his rays from their snowy summits, while below me the bergs seemed balancing themselves in the glassy water. Within sight, and almost seeming to touch me, was a miniature glacier, some five or six miles long and two or three hundred yards wide, which,

like an overflowing molten mass, had oozed out of the valley above, and was now imperceptibly working its way to the sea. Just at my feet grew a last year's specimen of *Cerastium Alpinum*—the mouse-ear chickweed. What a contrast to the neighboring glacier! This one vestige of life in the middle of the surrounding desolation carried back my thoughts on memory's rapid wing to the far-distant shores I had quitted so long before; thoughts of home and loved ones, and perhaps even more solemn thoughts still, were not out of place, there, in the presence of such symbols of Time and Eternity.

But my watch, which pointed to two in the morning, warned me not to delay longer descending the mountain, which I confess I did not begin without apprehension, remembering the dangers of the ascent. There was no help for it, however; so I set forward with what courage I might.

Skirting the base of the jökler to the westward, I reached the edge of a steep bank of broken stones, the *détritus* of the rock, which had accumulated and formed a considerable slope occupying the bed of a narrow valley between two prominent spurs of the mountain. My progress over this was neither safe nor agreeable. At every step the stones rolled away from under my feet, and I was more than once precipitated with violence against sharp blocks. At times it was hard to believe that the whole side of the mountain was not instinct with life, so continuous was the movement among the *débris*. It is easy to imagine the effect of this part of my journey—the cutting of my boots, the tearing of my hands, and the dilapidation of my apparel generally. With great delight I found myself on a declivity apparently covered with soft snow. This tempted me to try the *Russe Montagne*, but unfortunately I had lost my alpenstock. By the aid of my geological hammer, however, I managed to contrive a tolerable rudder; so, seating myself on the snow, feet well kept together and the hammer under my arm, down I went very pleasantly for a while; but the surface suddenly changing from soft snow to hard frozen ice, the velocity of my progress became almost terrific. Happily this frozen surface only extended some two hundred feet, after which there was again soft snow; but the impetus

thus given was sufficient to carry me much more quickly than I approved to the bottom of the slope and throw me most abruptly into a water-course formed by the melting of the snow. Rather startling was the transition from the warmth caused by my quick descent to a very cold bath, and rather ruefully I picked myself out of it, and endeavored to make the best of my way to the ship. Keeping along the edge of a moraine, the remnant of some former glacier, I at length reached a gorge that had been the bed of a wide and once rapid river, which had made for itself a passage in the rock some twenty to thirty feet deep, and about two to three hundred wide. As the river had diminished to a tiny stream, the fine sections of the coal strata were beautifully visible. The layers of coal were but

some eight to twenty inches thick, alternating with thick beds of sandstone. No fossil impressions were to be found in these bands; but, subsequently, I was fortunate enough to obtain specimens of fir and beech fossil leaves from Atanakerdluk on the opposite side of the strait, where lignite in all stages, from charred wood to fully fossilized coal, was to be found—in one place the stem of a tree, discovered by Inglefield, in an almost erect position. Amber has also been found in small quantities. Thenceforward my course was plain; I followed the bed of the torrent, which led me to the coast, and at about a quarter-past four found myself on board the ship, where my companions had almost given up for lost.

From Bentley's Miscellany.

T H E D E A T H - S H I P .

FROM THE DANISH OF B. S. INGEMANN.

BY MRS. BUSHBY.

UPON the deck fair Gunhild stands
And gazes on the billows blue,
She sees reflected there beneath,
The moon and the bright stars too.

She sees the moon and the lovely stars
On the clear calm sea—the while
Her steady bark glides gently on
To Britain's distant isle.

'Twas long since her betrothed love
Had sought, alas! that foreign strand,
And bitterly had Gunhild wept,
When he left his native land.

He promised tidings oft to send,
He promised soon to come again;
But never tidings reached her ear—
She looked for him in vain!

Fair Gunhild could no longer bear
Such anxious, sad suspense—
One gloomy night from her parent's home
She hath fled, and hied her thence.

Mounting yon vessel's lofty side,
To seek her love she swore—
Whether he lay in ocean's depths,
Or slept on a foreign shore.

Three days had she been tossed upon
Wild ocean's heaving wave,
When the sea became, at the midnight hour,
As still as the solemn grave.

On the high deck the maiden stood,
Gazing upon the deep so blue;
She saw reflected there, beneath,
The moon and the bright stars too.

The crew were wrapt in hushed repose,
The very helmsman slept,
While the maiden, clad in robes of white,
Her midnight vigil kept.

'Twas strange! at that still hour, behold!
A vessel from the deep ascends;
It flutters like a shadow there,
Then near its course it bends.

No sail was spread to catch the breeze;
Its masts lay shattered on the deck;
And it did not steer one steady course,
But drifted like a wreck.

Hushed, hushed was all on board that bark,
But flitting by—now here, now there—
Seemed dim, uncertain, shadowy forms,
Through the misty moonlight air.

And now the floating wreck draws near,
Yet in the ship 'tis tranquil all;
That maiden stands on the deck alone,
To gaze on the stars so small.

"Fair Gunhild!" faintly sighs a voice,
"Thou seek'st thine own betrothed love,
But his home is not on the stranger's land,
No, nor on earth above.

"'Tis deep beneath the dark, cold sea—
Oh! there 'tis sad to bide—
Yet he all lonely there must dwell,
Far from his destined bride!"

"Right well, right well thy voice I know,
Thou wanderer from the deep, wide sea;
No longer lonesome shalt thou dwell,
Far, far away from me."

"No, Gunhild, no! thou art so young—
So fair—thou must not come!
And I will grieve no more if thou
Art glad in thy dear home.

"The faith that thou to me didst swear
To thee again I freely give;
I'm rocking on the billow's lap—
Seek happier ties and live!"

"The faith I vowed I still will hold,
I swear it here anew;

Oh! say if in thy cold abode
There is not room for two?"

"Room in the sea might many find,
But all below is cheerless gloom;
When the sun's rays are beaming bright,
We sleep as in the tomb.

"'Tis only at the midnight hour,
When the pale moon shines out,
That we from ocean's depths may rise,
To drift on the wreck about."

"Let the sun brightly beam above,
So I within thine arms repose!
Oh! I shall slumber softly there,
Forgetting earthly woes!

"Then hasten, hasten, reach thy hand,
And take thy bride with thee!
With thee, oh! gladly will she dwell,
Deep, deep beneath the sea!

"And we will oft at midnight's hour
Upon the lonely wreck arise,
And gaze upon the pale, soft moon,
And the stars in yonder skies."

Then reached the dead his icy hand;
"Fair Gunhild, fear not thou!
The dawn of rosy morn is near,
We may not linger now!"

Upon the wreck the maiden springs—
It drifts away again;
The crew of her bark, awaking, see
The Death-Ship on the main!

The startled men crowd on the deck,
With horror on each brow;
They pray to God in heaven above,
And the wreck has vanished now!

REMARKABLE LITERARY BIOGRAPHY.

WHY IRVING WAS NEVER MARRIED.

THE following sketch of a remarkable man is so full of touching and romantic interest, that few will not be affected by the narrative. Washington Irving has a fame so valued in American hearts, that every thing connected with his life is worthy of remembrance. We find the following from the *Boston Post* of April third, by its New-York correspondent:

"Much mystery has attached to the celebrity of Washington Irving. While upon every other point of peculiarity of the great writer's character and career, his familiar friends have taken pains to inform the wide circle of his admirers, an aggravating reticence has always met the questionings of those who were curious as to why matrimony made no part of his.

experience. There were occasional and very vague references made to a "lang syne" love—so dimly distant in the past as to have the air of tradition—and the manner of mentioning which made Irving appear the model of constancy, if not the hero of a romance. But the circumstance of his bachelorhood remained a simple, unexplained fact; the theme of many wonderings, the warp and woof of much imagining—nay more, the substructure of a thousand sweet sympathies outgushing from other hearts whose loves had not been lost but gone before. It is doubtful if a secret of the sort—all things considered—was ever before so carefully and completely kept. For once the impertinent were held at bay, the prying were baulked, and the sympathetic, even, discouraged. The set time for its disclosure had not come, and, surely, when his intimates and relatives were debarred from the remotest reference to the subject in the hallowed home circle of the literary bachelor, it was but proper that the truth should burst forth upon the world, if at all, in Irving's own selected time and in his own pathetic language.

"It was while engaged in writing his *History of New-York*, that Irving, then a young man of twenty-six, was called to mourn the somewhat sudden death of Matilda Hoffman, whom he had hoped to call his wife. This young lady was the second daughter of Josiah Ogden Hoffman, and the sister of those two talented men, Charles Fenno Hoffman, the poet, and Ogden Hoffman, the eloquent jurist. In her father's office Washington Irving had essayed to study law, and with every prospect, if industrious and studious, of a partnership with Mr. Hoffman as well as a matrimonial alliance with Matilda. These high hopes were disappointed by the decease of the young lady on the twenty-sixth of April, 1809, in the eighteenth year of her age.

"There is a pathos about Irving's recital of the circumstances of her death, and of his own feelings, that is truly painful and tear-impelling. He says: 'She was taken ill with a cold. Nothing was thought of it at first; but she grew rapidly worse and fell into a consumption. I can not tell you what I suffered. . . . I saw her fade rapidly away—beautiful, and more beautiful and more angelical to the very last. I was often by her bedside, and in her wandering state of mind she

would talk to me with a sweet, natural, and affecting eloquence that was overpowering. I saw more of the beauty of her mind in that delirious state than I had ever known before. Her malady was rapid in its career, and hurried her off in two months. Her dying struggles were painful and protracted. For three days and nights I did not leave the house, and scarcely slept. I was by her when she died; all the family were assembled round her, some praying, others weeping, for she was adored by them all. I was the last one she looked upon. . . . I can not tell you what a horrid state of mind I was in for a long time. I seemed to care for nothing; the world was a blank to me. I abandoned all thoughts of the law. I went into the country, but could not bear solitude, yet could not enjoy society. There was a dismal horror continually in my mind that made me fear to be alone. I had often to get up in the night and seek the bedroom of my brother, as if the having a human being by me would relieve me from the frightful gloom of my own thoughts. Months elapsed before my mind would resume any tone; but the despondency I had suffered for a long time in the course of this attachment, and the anguish that attended its catastrophe, seemed to give a turn to my whole character, and throw some clouds into my disposition, which have ever since hung about it. . . . I seemed to drift about without aim or object, at the mercy of every breeze; my heart wanted anchorage. I was naturally susceptible, and tried to form other attachments, but my heart would not hold on; it would continually recur to what it had lost; and whenever there was a pause in the hurry of novelty and excitement, I would sink into dismal dejection. For years I could not talk on the subject of this hopeless regret; I could not even mention her name; but her image was continually before me, and I dreamt of her incessantly.'

"Such was the language in which Irving poured forth his sorrows and sad memories, in a letter written many years ago to a lady who wondered at his celibacy, and expressed the wish to know why he had never married. Can words more graphically describe the shipwreck of hope, or more tenderly depict the chivalric devotion of a faithful lover? How sweetly, too, does Irving portray with his artist-

pen the lineaments of his loved one. He says, in the same letter: 'The more I saw of her, the more I had reason to admire her. Her mind seemed to unfold itself leaf by leaf, and every time to discover new sweetness. Nobody knew her so well as I, for she was generally timid and silent; but I in a manner studied her excellence. Never did I meet with more intuitive rectitude of mind, more native delicacy, more exquisite propriety in word, thought, and action, than in this young creature. I am not exaggerating; what I say was acknowledged by all who knew her. Her brilliant little sister used to say that people began by admiring her, but ended by loving Matilda. For my part I idolized her. I felt at times rebuked by her superior delicacy and purity, and as if I was a coarse, unworthy being in comparison.'

"Irving seldom or never alluded to this sad event, nor was the name of Matilda ever spoken in his presence. Thirty years after her death Irving was visiting

Mr. Hoffman, and a grand-daughter in drawing out some sheets of music to be performed upon the piano, accidentally brought with them a piece of embroidery, which dropped upon the floor. 'Washington,' said Mr. Hoffman, 'this is a piece of poor Matilda's workmanship.' His biographer describes the effect as electric. 'He had been conversing in the sprightliest mood before,' says Pierre M. Irving, 'and he sunk at once into utter silence, and in a few minutes got up and left the house.' Do any of the pages that record the 'loves of the poets' glisten with a purer, brighter halo than is thrown around the name and character and memory of Matilda Hoffman by the life-long constancy and the graceful tributes of one whose name, destined to a deathless renown, may not henceforth be dissevered from that of the early lost and dearly loved, whose death made Washington Irving what he was and what the world admires?

NOR'WESTER."

P I C T U R E O F M E X I C O .

MEXICO stretches from sea to sea on the North-American continent, between the United States and the Central American republics. It has been shorn of much territory by the annexation of its northern and the secession of its southern districts, yet it still retains an area nine times as large as that of Great Britain and Ireland. Its government is a federal republic, divided into twenty states, (Yucatan being no longer in the Union,) a federal district, and three territories.

The country is almost unique in its conformation. It is one vast mountain, the Cordillera, rising out suddenly from the sea, the top of which forms the table-land that comprises most of its area, and slopes to the north with a gradual decline. Out of the table-land spring other mountain chains. As you enter from the south, the range of the Cordillera branches off east and west, running on each side at no great distance from the coast. In the

space between the mountain and the shore there is all the burning heat and luxuriant vegetation of the tropics—it is the Tierra Caliente, the first of the three climates of Mexico. The verdure is of surpassing beauty—a sea of burning green. Tall forests of cocoas and feathery palms rise over almost impenetrable thickets of aloe, banana, and leafy cane; groves of oranges and lemons mingle their fruits with granaditas and pine-apples in rich profusion; a thousand parasites wave from the lofty branches, and fling their garlands to the earth; a multitude of gorgeous orchids, some erect, some pendent, start from the bark of living or prostrate trees, the whole alive with birds of gaudy plumage and noisy chatter, mocking-birds, cardinals, cat-birds, golden pheasants, parrots, and humming-birds; whilst the pools swarm with wild fowl, and the air with mosquitoes and crowds of painted butterflies.

Such is the most attractive side of the picture. But it has its reverse. Malaria lurks in the heavy air, and yellow fever decimates those who are not acclimatized. Vera Cruz is called by the natives La Ciudad de los Muertos—the City of the Dead. Through one half the year the pestilence rages, through the other storms sweep along the coast, which render the shore unapproachable from the sea, and deluge those who venture out of doors.

As you advance inland, the climate changes to the perpetual spring of the Tierras Templadas, or Temperate Region, which lies on the slope of the Cordillera to the height of about five thousand feet. To this elevation above the sea-level its climate is due. Although within the tropics, the extremes of heat and cold are unknown. Jalapa is the head-quarter of the Tierras Templadas. The vanilla, the indigo, and the palm are no longer seen, but other tropical vegetation here consorts with the oak and apple, and other products of temperate lands. The bright verdure is occasionally broken by deep *barrancas*, or volcanic ravines, which intersect the country, and in whose recesses the vegetation of the Tierra Caliente blooms, and by the snow-clad cones of lofty volcanoes. In the winter months there is no cold, but the atmosphere is damp and misty; in the summer the sun shines out in a sky of serene and pure blue.

Crossing a rocky sierra as you advance northward, you enter the valley of Mexico, and are in the Tierras Frias, or cold regions. The valley is shut in by the peaks of the Cordilleras, which form a gigantic azure belt of about sixty leagues in circumference. Fine lakes glisten in the bright sun, and in two of them the lofty cones of two snow-capped volcanoes are reflected. The marked features are a dark forest of cedars, clumps of pale green olives, and an occasional palm or weeping willow. The air is so clear that the distance melts away, bathed in light which the eye's vision is too feeble to penetrate.

Advancing yet farther to the north, you reach the district of the silver mines, here in the midst of fertile fields of maize, there on bare, rocky, whose forests have been ruthlessly cut down by Spanish miners, whose improvidence neglected to plant any young trees in their stead. The most northern States are bounded by waving

prairies, through which the mule-caravans pass to New-Mexico and Texas.

The political history of Mexico has all the interest of a romantic story. The Spaniards found it inhabited by a highly-civilized people, under the rule of the powerful Montezuma. The valley of Mexico teemed with an industrious population; numerous cities lined the shores of the lake of Tezeuco, on which the capital is now situate. More than all, the Europeans were astounded at the splendor which surrounded the person of the Emperor, the magnificence of his palaces, gardens, and menageries, and the elegance of the metal work and other manufactures with which they were adorned. All these have long since passed away. But the great Calendar stone built into the cathedral at Mexico, the huge pyramid at Cholula, and some ruined cities, still remain to testify to the truth of the Spanish accounts of Aztec civilization. There are probably many monuments of the past yet unexplored, which will reward the search of future travelers.

The story of the conquest of Mexico by Cortez must be read in the pages of Prescott and Robertson. With a handful of men he subdued the Aztecs, but not until Mexico was a heap of ruins. The terrible sufferings of the siege, and the fortitude with which they were borne, are unsurpassed in the annals of the world's history. Alvarado added all Central America, then called Guatemala, to the empire of Mexico. The Jesuits won California by more peaceful weapons. The Spanish crown held all North-America, from the Isthmus of Panama to the northern boundaries of Texas, New-Mexico, and California. The Pope was good enough to confirm Spain in the possession of this territory, won for it by the acts and arms of its subjects.

Mexico was governed for nearly three centuries by Spanish viceroys. The home government made good laws for the protection of the Indians, as the natives were termed, but they were unable to enforce them. The people were terribly maltreated by their Spanish and Creole masters. They were forced to labor in the silver mines, to work on the farms of the planters, and to pay heavy taxes to the king. In vain did the Council of the Indies interfere in their behalf. In vain did the Pope assert that *they were really men*, and capable of being convert-

ed to Christianity. The Spanish colonists only thought of making a fortune and returning to Europe. Indeed, Spanish pride made but little distinction between Indians and Creoles, although the latter were as rich and more numerous than the Europeans. One of the last viceroys declared, that as long as a Castilian cobbler remained in Mexico, he ought to rule.

The Creoles revolted against Spain in 1810, and, after a struggle of about ten years, the independence of the country was established. Ever since, different parties in the state have been quarreling with one another. There has usually been a liberal and a priestly faction, but the leaders have changed sides so often, that the whole country has been thrown into a hopeless condition of confusion. The Mexicans are exceedingly bigoted, and hate foreigners, their ill-treatment of whom has caused the present intervention of England, France, and Spain.

Mexico is but thinly populated. It contains only some seven millions of inhabitants. The people do not bear a high character: they are cowardly and quarrelsome, much addicted to use their knives when provoked. Assassination is exceedingly common, and the friends of the murdered man, instead of seeking for justice from the law, avenge his death themselves. Thus feuds are constantly rising and spreading. The religion of Mexico is Roman Catholic, and they are excessively intolerant; but the Indians hold a strange intermixture of heathenism and popery. The language universally spoken is Spanish. Of the character and habits of the Mexicans, we must speak more fully in another paper.

Mexico, the capital, is charmingly situated in the great valley of the tableland. Its streets run in a straight line at right angles to one another, and the view is almost invariably shut in by the purple of the distant hills far beyond the city itself. The population is estimated at one hundred and seventy thousand. The houses are commonly quadrangular in shape, entered by a large gateway leading into a court-yard, generally filled with flowers. The ground floor is occu-

pied by the servants and the stables, and its windows to the street, if any, are strongly barred; the other floor contains the reception and dwelling-rooms of the family. The outer walls are stained with various colors, and the balconies hung with striped cotton, which gives them a jaunty appearance. The flat roof, called the azotea, is the receptacle for a quantity of flowers, and forms the promenade and evening lounge of the household.

The great square contains the cathedral on one side—a huge pile, overladen with ornament, containing immense stores of silver plate, many tawdry pictures, and abundance of dirt. The President's palace, including all the offices of administration besides, two barracks, a prison, a botanic garden, and the legislative chambers, fill up another side of the square; the remainder is occupied by two large markets. There is great abundance of churches and convents, whose spires and domes of blue and yellow tiling diversify the picture. The streets swarm with people, save in the hours of the siesta, until the last toll of the *hujelus* or evening bell, when all respectable persons hurry home. It is not safe to be out after dark.

The Alameda, or public park, is the great place of resort in the evening. Carriages of every description, from the modern barouche to the old-fashioned gilded coach, like that of my Lord Mayor, throng the drive. Mexican gentlemen, in velvet jackets of gaudy colors and silver buttons like a postillion—the saddle, bridle, and stirrup all bright with silver and stamped leather, with high pommel and cantle, so that the rider can only just put his toes into the stirrup—prance upon their spirited little horses. The ladies do not wear bonnets, but have their hair dressed with much care, and adorned with natural flowers; all have fans, which they use with much grace.

The outskirts of the capital contain some miserable quarters, in which the leperos reside; but we must defer an account of this peculiar class of the Mexican people, and of other matters, until our next paper.

L I T E R A R Y M I S C E L L A N I E S .

A BOOK ABOUT DOCTORS. By J. CORDY JEAFFRESON, author of "Novels and Novelists," "Creme Rise," etc. Reprinted from the English edition. Pages 490. New-York: Rudd & Carleton, 130 Grand street.

This is a curious book. It is an omnium gatherum of anecdotes, old stories, facts, and fancies in the lives, histories, manners, and customs of old veteran doctors of the medical profession. It seems especially more designed for their amusement, whenever they are in a mood to be amused. Others may share in the curious anecdotes, and be amused also. Among the contents of the book are, Early English Physicians, Sir Hans Sloane, Quacks, Dr. John Radcliffe, Pedagogues turned Doctors, Fees, the Generosity and Parsimony of Physicians, the Quarrels of Physicians, the Loves of Physicians.

SONGS OF THE CHURCH; OR HYMNS AND TUNES FOR CHRISTIAN WORSHIP. Hymns, 1193; 24 Chants, etc. Pp. 380, with an Appendix. New-York: Published by A. S. Barnes & Burr, 51 John Street. 1862.

This is a neat and convenient volume with the attractive contour characteristic of all the publications of this house. In the interior of the volume, in the selection of hymns and musical arrangements, good taste and judgment seem to prevail. We doubt not it will find many patrons and extended usefulness. Musical authors and compilers vary in their tastes and judgments, but we welcome every good book of music for use in the sanctuary, in the social prayer-meeting, and in the family. There is none too much music and songs in this jarring and discordant world. The more the better.

THE PRINCE OF WATERLOO.—In a recent meeting of the Belgian House of Representatives, one of the subjects which came under discussion was the grant to the Duke of Wellington, in 1815, as Prince of Waterloo, which was understood to have been given to his grace and to his direct descendants, and some information was asked as to how things now stood, in consequence of the death of the Duke. In reply, it was stated by M. Frere-Orban that his attention had been drawn to this subject by observations which had been made in the newspapers some years ago, and he had in consequence made inquiries, from which he had learnt that the direct line of the Duke of Wellington was not extinct, for, although the rights claimed by his son were contested, because, at the time of his birth, the system of registration was imperfect or irregular, yet it had subsequently been proved by other means, and particularly by an inscription in a family Bible, that the present Duke was the legitimate offspring of the first Prince of Waterloo, and as such was entitled to be recognized as one of the direct lineal descendants who were included in the original grant.—*Globe*.

NOTICE OF MOTION.—The railway whistle.

STATISTICS OF 1862.—The House of Peers at present consists of two royal dukes, (Cambridge and Cumberland—the latter the King of Hanover,) 3 archbishops, 25 dukes, 31 marquises, 163 earls, 30 viscounts, 27 bishops, and 160 barons. The Bishop of Bath and Wells also sits as Baron Auckland; so the total present number of members of the House of Peers is 440. There are also 19 peers who are minors, and await their coming of age to take their seat in the House. The peers of Scotland and Ireland who are not peers of Parliament number 114, of whom six are minors. The peeresses in their own right amount to 15. The number of privy councilors in England and Ireland is 224. In the United Kingdom there are 853 baronets, 472 knights, and 109 noblemen and baronets who are also knights of the various orders of British knighthood. There are 772 companies of the Order of the Bath. In the army there are three field marshals and 506 generals, and 286 generals in the Indian army. The admirals in the navy number 301; and there are 150 Queen's counsel and sergeants-at law.

GREAT MONUMENT IN RUSSIA.—A correspondent of the *Morning Advertiser*, writing from St. Petersburg, sends some account of the great memorial now erecting at Novgorod, to celebrate the thousandth birthday of the Russian Empire. Of the groups of colossal figures, the first represents Rurik of Rosslagen (in Sweden) arriving, sword in hand, among the Slavonians of Novgorod, and laying the foundation of the Russian Empire. Nothing is known of the history of the country now called Russia before Rurik arrived in it with the able governors and irresistible warriors, who extended their dominions in a few years from the Baltic to the Black Sea. The principal figure in the second of the colossal groups is the Russo-Norman Vladimir, under whom Christianity was introduced, (988;) the principal figure in the third is Demetrius of the Don, a prince of Russo-Norman descent, who, for a time, freed Muscovy from the Tartars, (1380;) in the fourth, Ivan III., also of the house of Rurik, who founded the Muscovite-Russian Czarate, (1462;) in the fifth, Michael Fedorovitch, the first Czar of the house of Romanoff, descended from Rurik by the mother's side, (1613;) in the sixth, Peter the Great, the founder of the Russian Empire. The bass-reliefs include the figures of a hundred and seven persons who have contributed to strengthen or to civilize Russia.

At the close of 1861 the whole number of paupers in England and Wales approximated 900,000. The entire population was less than 20,000,000—nearly one in every 20 persons being paupers. In the manufacturing districts only, the number in December last was 217,851. But looking to the vast wealth of the nation, and its habitual benevolence, the Queen in her recent speech to Parliament pronounced the general condition of the country to be "sound and satisfactory."

I WOULD NOT CALL THEE MINE.

FAREWELL! thy hand I would not take,
 Unless the gift contained thy heart;
 Far better, for each other's sake,
 To wear life's galling chain apart.
 I love thee, worship thee! but still
 If deep within that heart of thine
 My passion wakes no answering thrill,
 I would not wish to call thee mine!

Without thee life will be a waste,
 My heart of every pleasure void;
 For bliss though offered to the taste,
 Without thee, could not be enjoyed.
 But since my love availeth not,
 Doth in thy soul no echo make;
 I would not have thee share my lot,
 Oh! better that my heart should break.

Farewell! though it is death to part,
 Farewell! 'tis more than death to me;
 I can not teach my self-willed heart
 To beat for any one but thee!
 And yet though doomed to love thee still,
 Since deep within that heart of thine
 My passion wakes no answering thrill,
 I would not wish to call thee mine! A. H.

A TENDER conscience is an inestimable blessing; that is, a conscience not only quick to discern what is evil, but instantly to shun it, as the eyelid closes itself against the mote.

THE EMPEROR AND GENERAL MONTAUBAN.—The *Moniteur* publishes a letter from General de Montauban, requesting the Emperor to withdraw the Bill granting him an annuity, as it had met with opposition in the Corps Législatif. "However small may be my income," says General de Montauban, "I should be very much grieved to see the idea of the Emperor and the glory of the army turned into a discussion personal to myself." The following is the Emperor's reply:

"My dear General: The request which you make to me to withdraw the Bill of dotation, is inspired to you by a sentiment which I honor; but I shall not withdraw the Bill. The legislative body may, if it pleases, not think worthy of an exceptional reward the leader of a handful of heroic soldiers, who, amidst so many difficulties and dangers, forgotten on the morrow of success, went to the end of the world to plant the flag of France in the capital of an empire of 200,000,000 souls; a leader who, while maintaining the dignity and independence of his command, understood how to preserve the most useful and friendly relations with our Allies. Every man is free to take his own view of the matter. As far as I am concerned, I wish the country and the army to know that, compelled to be a judge of military and political services, I have wished to honor by a national donation an unexampled enterprise. Great actions are most easily performed where they are best appreciated, and degenerate nations alone dole out public gratitude. Receive, my dear General, the assurance of my sincere friendship.

"NAPOLEON."

THE EMPEROR AND EMPRESS OF THE FRENCH AT A BALL.—The Minister of State and the Countess Walewski have given a most brilliant fancy ball in Paris. The dresses were of extraordinary mag-

nificence, and all the ornamentation of the rooms remarkable for elegance and good taste. The Emperor and Empress were present in domino. The Princess Anna Murat wore powder and a court dress of the last century; the Countess de Persigny appeared as Snowy Night; the Princess Troubetzkoi as Peau-d'Ane; Mme. de Lutheroth was covered with diamonds; and the Count de Demidoff wore the dress of a Tcherkesse, having in his casque the splendid diamond which bears the name of his family. The Countess Walewski, as a foreteller of the future, did the honors of the night.

MR. PEABODY, THE AMERICAN BANKER.—When Mr. Peabody, the celebrated American banker, who is about to quit this country, first heard of the national memorial of the late Prince-Consort, he authorized Sir Emerson Tennent to state that, should that memorial be a charitable institution, he would give £100,000 toward it; and his disappointment was great on learning that the money would not be expended in that way. However, Mr. Peabody still resolved on carrying out his charitable scheme—as a token, he says, of gratitude to the English nation, for the many kind acts he has received from them, and also in memory of his long and prosperous career in this country—has decided on erecting a number of houses for the working class, who, through the innumerable improvements in the metropolis, have been rendered almost homeless. For this purpose he gives £100,000, and also undertakes to pay the first year's interest of the money—£5000. Sir Emerson Tennent is appointed one of the three trustees; Lord Stanley, M.P., it is hoped, will be the second; the third has not yet been nominated. Mr. Peabody has realized in this country, it is said, an annual income of £70,000.—*Court Journal*.

THE FIRST SAFETY LAMP.—In 1816 Davy's safety-lamp for the first time shed its beams in the dark recesses of a coal-pit. The Rev. John Hodgson, rector of Jarrow, near Newcastle, had on the previous day received from Sir Humphry Davy two of the lamps. Davy, although he felt a well-grounded reliance in the scientific correctness of his lamp, had never descended a coal-pit to make the trial; and Hodgson determined to do this for him. Till this time, miners were in the habit, when working in foul air, of lighting themselves by a steel mill—a disk of steel kept revolving in contact with a piece of flint; such an arrangement being safe, though certainly calculated to afford very little light. Armed with the safety-lamp, Mr. Hodgson descended Hepburn pit, walked about in a terrible atmosphere of fire-damp, or explosive gas, held his lamp high and low, and saw it become full of blazing gas without producing any explosion. He approached a miner working by the spark light of steel mill; a man who had not the slightest knowledge that such a wonder as the new lamp was in existence. No notice had been given to the man of what was about to take place. He was alone in an atmosphere of great danger, when he saw a light approaching, apparently a candle burning openly, the effect of which he knew would be instant destruction to him and its bearer. His command was instantly, "Put out the light!" The light came nearer and nearer. No regard was paid to his cries, which then became wild, mingled with imprecations against the comrade (for such he took Hodgson to be) who was tempting death in so rash and certain a way. Still, not one word was said in reply; the light continued

to approach, and then oaths were turned into prayers that his request might be granted; until there stood before him, silently exulting in his success, a man whom he well knew and respected, holding up in his sight, with a gentle smile, the triumph of science, the future safeguard of the pitmen.—*Chambers's Book of Days*.

PRESENCE OF MIND.—Brunel's presence of mind and promptitude of action were early conspicuous. During his sojourn in America these valuable properties were often called forth. Once, for example, when employed on an island in Lake Champlain, he chanced to arouse the vindictive instincts of a rattlesnake. His companions fled; but Brunel stood his ground, and, as the reptile approached, he broke its back with a heavy stone skillfully thrown. At a later period of his life, while in the act of inspecting the Birmingham Railway, a train, to the horror of the bystanders, was observed to approach from either end of the line with a velocity which, in the early experience of locomotives, Brunel was unable to appreciate. Without attempting to cross the road, he at once buttoned his coat, brought the skirts close round him, and firmly placing himself between the two lines of rail, waited with confidence the issue. The trains swept past, leaving Brunel unscathed.

THE LAST OF HIS RACE.

(*The Baron Solus. Time—Midnight.*)

THE wind through the ancient battlements,
Holds on a mournful strain,
And the Harp, long silent on the wall,
Untouched, replies again!

No mortal hand swept o'er those strings,
No earthly tones were those;
The guardian spirit of our race,
Thus warns me of its close.
And hark! I hear these towers among,
A solemn chorus steal;
My fathers from their trophied tombs,
The truth to me reveal.
I die, the last of all my race!
Unstained I've borne the name—
We cease, but on the rock of time,
Our deeds are stamped by fame.

When the battle-field was red,
For our country we have bled,
Nor ever turned aside,
From the battle's fiercest tide.
And oft my brand hath sped
To the foe's fated head;
Though my arm is feeble now,
Age enthroned on my brow,
But not alone these walls
To the battle-cry have rung,
Nor warlike deeds alone
Have our gifted minstrels sung;
When tamed the foe's pride,
And war's stern note had died,
To spread delight around,
We foremost still were found.

The hills and the dales in the gray of the morn,
Have rung to the blast of our hunter's horn;
And the lord of the soil with his yeomen would
share,

The joy of the chase and the health-breathing air.
Tally ho, tally ho, I hear them still,
As they sweep o'er the plain or the breezy hill;
In war, in peace, still first in the field,
Or play or death, we never would yield.

And oh! ye peaceful cottage homes,
Where nature oft hath gone her round,
From infancy to helpless age,
Where happiness doth still abound;
The race you've honored died in me,
Oh! may you such another find,
To plan your harmless hours of glee,
And tend your wants with heart as kind.

Hark! once again the hand unseen
Awakes that mystic harp's wild strain;
And through the halls I see them sweep,
My Fathers! in a shadowy train.
And dreamy tones float in the air,
Or joy or sorrow, scarce defined,
Yet seeming both, our fame and fall,
In one unearthly dirge combined.
Mourn not, my sires! To Heaven's decrees
Ye humbly bent, nor fail in me:
I nothing fear, but bow to fate,
And calmly thus death's summons wait.
It comes! And I approach the goal,
O God! receive my parting soul.

J. W. THIRLWALL.

EARLY USE OF ELECTRIC TELEGRAPH.—In a paper read at the last meeting of the Manchester Literary and Philosophical Society, Mr. Dyer pointed out the following extract from Arthur Young's *Travels in France*, (2d edition), London, 1794, which proved that electricity had been employed at that early date for the purpose of transmitting intelligence: "In the evening to Mons. Lomond, a very ingenious and inventive mechanic, who has made an improvement in the jenny for spinning cotton. Common machines are said to make too hard a thread for certain fabrics, but this forms it loose and spongy. In electricity he has made a remarkable discovery. You write two or three words on a paper: he takes it with him into a room, and turns a machine inclosed in a cylindrical case, at the top of which is an electrometer, a small fine pith ball: a wire connects with a similar cylinder and electrometer in a distant apartment; and his wife, by remarking the corresponding motions of the ball, writes down the words they indicate, from which it appears that he has formed an alphabet of motions. As the length of the wire makes no difference in the effect, a correspondence might be carried on at any distance; within and without a besieged town for instance; or for a purpose much more worthy, and a thousand times more harmless, between two lovers prohibited or prevented from any better connection. Whatever the use may be, the invention is beautiful."

SAMPLE OF A TIP-TOP STYLE.—With this entrance of Napoleon into the Tuileries the Revolution ended. Bonaparte laid his victorious sword across the yawning, sanguinary abyss, which had drunk up indifferently the blood of aristocrats and democrats; and he converted this sword into a bridge, over which the nation passed out of one century into the next, and from the Republic into the Empire. When Napoleon, on the morning after the removal to the Tuileries, walked with Josephine and Hortense

through the Gallery of Diana to inspect the statues he had ordered to be placed there, he stopped before the bust of the younger Brutus, close to whom stood a statuette of Cæsar. Bonaparte gazed for a long time thoughtfully on these two solemn, earnest forms. Then, as if awaking from a dream, he proudly raised his head, and placing his hand upon Josephine's shoulder, said in an energetic tone: "It is not enough to be in the Tuileries, a man must also understand how to remain there! How many have already dwelt within these walls! Yea, even highwaymen and Conventionals. Did I not see with mine own eyes how the wild Jacobins and the cohorts of the *sansculottes* besieged good King Louis and carried him off a prisoner? But do not fear, Josephine, they may come again, if they dare!" While Bonaparte stood thus and spoke before the statues of Brutus and Julius Cæsar, his voice echoed like rolling thunder through the long gallery, and made the forms of the heroes of the ancient republics tremble again on their pedestals. Napoleon raised his arm menacingly toward the bust of Brutus, as if he meant to challenge in this stern Republican, who murdered Cæsar, Republican France, to whom he intended to become a Cæsar and an Augustus at the same time. — *Memoirs of Hortense, compiled by Lascelles Wrazell and R. Wehrhan.*

THE "TAKING" OF GIBRALTAR.—I remembered how often the present King of France, Charles X., had told my father and me the story of his being summoned to meet almost all the Catholic Princes of Christendom, and all the flower of the French and Spanish armies, as to a party of pleasure, to see the "taking of Gibraltar," where various amusements, and bull-fights, and balls were provided to while away each day of anxious expectation, when the propitious morning at last arose which was again to plant the flag of Spain upon the walls of Gibraltar. So certain did they consider themselves of conquest, that dinner and a ball were prepared at Algeiras for General Elliott and his officers when made prisoners. At length the Spanish batteries moved down, constructed with all the care that science could bestow and art invent. The *Académie Française* contributed its labors to improve upon these mighty engines of destruction—and they moved down, the monuments of the combined science, as well as anger of Europe, united against this one object so dear to the vanity, so dear to the interests of the parties engaged in the attempt. The Princes witnessed the scene from the first parallel, and the surrounding hills were crowded with the population of the country, fancying even the reality of the visionary existence of the Queen of Spain in her chair, who had vowed to remain there until she saw the standard of Spain float upon the walls of the fortress she called her own. In a few hours all was dust and ashes, and the few survivors amongst the assailants owed their lives to British generosity and humanity. — *Duke of Buckingham's Private Diary.*

MADAGASCAR: THE OLD RIVALRY.—The utter falsity of the stories with which the French papers were filled as soon as the death of the old Queen of Madagascar was announced is now demonstrated. They must have been fabricated with the deliberate purpose of bringing to pass that which they pretended was already as good as done. The die betrays the mint—they were the work of those famous coiners the Popish priests. The new King is no Catholic; he has shown no desire for French pro-

tection; he has not made M. Lambert his Prime Minister, or charged him with a special mission to Europe. Colonel Middleton, who headed the recent embassy from the Mauritius to Radama II., says in his report that "there is no truth in the statement that the king has sought the official counsel of Europeans, or appointed one of them to fill an important executive office. Such a step would be entirely opposed to the spirit of the Madagascar government." It is now well understood that there is a distinct understanding between the English and French governments that there shall be no interference on either side with the existing order of things, and no step taken with reference to the island except by mutual agreement. If any influence predominates at the capital, it is certainly English; and the inhabitants generally express the utmost pleasure at the presence of Englishmen amongst them. — *The Patriot.*

BONAPARTE AND HIS STUDIES.—In a quiet and somber-looking house in Westbourne Grove resides Prince Louis Lucien Bonaparte, the student and eminent linguist, who occupies his time almost exclusively with the grammars and dictionaries of every European language and idiom. His Highness has here amassed the finest collection of linguistic and dialectical works ever brought together. Some thousands of volumes are entirely in Welsh, whilst every known book relating to our country dialects graces the library. The collection on the slang and cant idioms of the various countries is most extraordinary, those books having reference to London slang and cant alone numbering more than two hundred. His Highness appears to be equally conversant with the vulgar dialect of the Laplander, the *argot* of the Parisian, or the *lingua Franca* of Trieste or Malta. The *Moniteur* very recently published an official report on the donations made to the Imperial Library during the year 1861, and amongst the printed works we observe twenty-one volumes from Prince Lucien Bonaparte, the fruits of his studies on European linguistics. From the same report we learn that the Russian government has sent to the Library a complete collection of the documents relating to the emancipation of the serfs, in twenty-nine volumes. There have also been presented a very curious Map of the World, on vellum, by Jehan Cossin, a Dieppe pilot, dated 1570; a collection of the charts published under the direction of the British Admiralty in 1860; a copy of the splendid Map of Gaul, under the pro-consulate of Cæsar, published by order of the Emperor; an Ethiopian Manuscript, containing the Fetha-Nagast, or Ethiopian code. — *English paper.*

HARES RACING WITH RAILWAY TRAINS.—In the early working of railways, particularly with mineral lines like the Stockton and Darlington, the "lamps" employed by night trains were iron baskets filled with burning coal, one of them usually swung on the side of the wagon as a signal to the following train. This light thus speeding along presented a great attraction to hares, which made it so general a practice to approach close to it, that some special allurements must have been exercised over these timid animals. It no sooner, however, came within the swinging traveling blaze that shone along its path than it would accompany the train for many miles, maver the continued attempts of the stoker to kill it by throwing lumps of coal at it. The position they invariably took in the race was just in advance

of the lamp; from which I infer that, as the light would shed its lustre upon only a very limited space of the course, the hare confined itself to this lighted space, clearly because beyond was darkness. This is evident from the circumstance that, after some distance had been run, if the light for a moment got ahead of the hare, the spell was ended, and puss parted company with the blaze. Again, in confirmation of this very timid animal being nonplussed by the luminous streak of light in which it raced with the speeding train, is the fact of it running many miles whilst the man on the proximate wagon was hurling lumps of coal at it with murderous intent, and shows it was bound by some more dominant power than a charm, whatever might have been the first incentive to approach the traveling light. The question yet remains—what motive, curiosity, or impulse enticed this nimble and timid animal to chase and join the running illumination, in spite of the puffing of the locomotive and the rumbling of a running coal-train, till it entered within the influence of the delirious dazzle?—*English paper.*

ABSTRACTION.—Although excellence can be scarcely looked for without the power of abstraction, yet it offers, more than any other tendency of the mind, examples of perversion to the ludicrous. Under its influence, it is related that Newton was tempted to use a lady's finger as a tobacco-stopper; Dr. Robert Hamilton, to take off his hat to his wife in the streets, and apologize for neglecting her salutation, as he had not the pleasure of her acquaintance; the Rev. George Harvest, to go out gudgeon-fishing when he should have appeared at the nuptial altar with his bishop's daughter; and Brunel, to caress the hand of a lady to whom he was scarcely known, but who happened to be seated next him at table, believing it to be that of his own wife.

It is estimated there are 14,600,000 persons of African descent on this continent and the islands adjacent thereto. In the United States they number 4,500,000; Brazil, 4,150,000; Cuba, 1,500,000; South and Central American republics, 1,200,000; Hayti, 2,000,000; British Possessions, 800,000; French, 250,000; Dutch, Danish, and Mexican, 200,000.

THE COST OF THE WARRIOR.—We learn by a parliamentary return, just issued, that the total cost of the Warrior, before being ready for sea, was £354,885. The hull was £251,646; the engines, £71,875; masts and rigging, £18,536; and fittings and alterations, £12,828.

INFLAMMABLE LADIES.—In these days of inflammable ladies, we shall, perhaps, render good service by giving publicity to the discovery recently made by a French chemist, that muslin, lace, and all descriptions of light stuffs may be rendered fireproof by steeping them in starch mixed with half its weight of carbonate of lime, or, as it is commonly called, Spanish chalk.

TEN new craters have appeared on Mount Vesuvius during the present eruption. English photographers are at work taking photographs of the mountain in its excited state.

A WHIRLPOOL, some three hundred and sixty feet in diameter, has been formed in the sea near Torre del Greco by the late eruption of Vesuvius.

WE know more of the heads of celebrated men than of their hearts; they have sketched the former in their works; their hearts are found in their secret actions.

WHEN our desires are fulfilled to the very letter, we always find some mistake which renders them any thing but what we expected.

CRYSTAL PALACE FOR THE PARISIANS.—A *société anonyme*, with a capital of 25,000,000 francs, is in course of formation for the construction of a "Palais de Cristal," in the Bois de Boulogne. The council of administration comprises a number of gentlemen well known both in France and this country—the French portion including the Marquis de la Roche-Aymon, Count de Santivy, the Marquis de Monclar, M. Pasqualini, and Prince A. Galitzin; and the English portion, Messrs. S. Beale, M.P., T. N. Farquhar, and Wm. Jackson, M.P. Sir Joseph Paxton has accepted the office of architect-in-chief; Mr. Edwin Clarke, that of consulting engineer; and Mr. Thomas Brassey, that of contractor-general. It is intended to make the Palace specially attractive by concentrating within it magnificent halls for public entertainments, and a vast nave for the exhibition of fine arts, manufactures, and horticulture. Balls, concerts, art-festivals, literary and national reunions, will find accommodation worthy of the advancement of the age. The exhibitions will be permanent.—*London paper.*

A CURIOUS DOCUMENT.—From Paris we hear that the second volume of *The Family of Orleans*, by M. Crétineau Joly, is shortly to appear, and is said to contain a curious document relative to the present Emperor of France. It is a letter from Queen Hortense, written soon after the Strasburg adventure. The mother of Louis Napoleon writes: "The failure of the undertaking is not to be much regretted." And later: "If unfortunately my Louis ever should become Emperor, he would ruin everything, and France entirely." It is supposed that this volume will appear in two editions, as no French publisher will venture on printing this letter; the French edition will merely make mention of the letter, while the Belgian is to reprint it completely.—*Paris letter in London Review.*

THE fellow who got intoxicated with delight has been turned out of the temperance society.

CURIOSITIES WANTED.—A handle for a blade of grass, a letter written with a cow pen, and a feather from the wing of a hospital.

THE RIGHT MAN IN THE RIGHT PLACE.—A husband at home in the evening.

THE importation of manufactured tobacco and snuff into the United Kingdom for the first eleven months of this year reached 1,897,616 lbs., being a great falling off as compared with the corresponding period of 1860, when the importation amounted to 2,288,197 lbs.

THE mints of the United States have coined, since they commenced operations, a period less than seventy years, the large amount of eight hundred million dollars, about one fifth of the whole metallic currency of the world,



Engraved by Geo. E. Peck, N.Y. for the Publisher, from a Photo^g taken just before his death.

HIS ROYAL HIGHNESS PRINCE ALBERT.

inherent in the human mind, be induced to fix their gaze upon the brilliant spectacle of the heavens constantly before them; and their attention once drawn to a contemplation of the firmament, they would remark the invariable position of the greater number of these bodies with regard to each other. Nor could they fail to observe that certain remarkable stars that were seen overhead in the evening twilight, at any particular season, presented themselves upon the western edge of the celestial hemisphere at the corresponding hour, when two or three months had glided by; and then, after a considerable time, again appeared overhead in the twilight. Hence, by some denomination or other, we should have a distinction made between what we now call fixed stars, and the planets; while the sun and moon are in their appearances sufficiently distinct from the rest of the heavenly bodies, to have called forth a further distinguishing appellation, and to have claimed the particular regard of these rude observers.

This was, in all probability, the origin of astronomy, and in this state, doubtless, did it remain for many ages, and in many countries, unknown to and unconnected with each other. Thus, for example, amongst the savage inhabitants of our own island, when discovered by the Romans, some of the simple facts of astronomy were well known. Thus, Pomponius Mela, speaking of the Druids, says: "*Hi terræ mundique magnitudinem et formam, motus cœli ac siderum, ac, quid Dii velint, scire profitentur*;" and Cæsar thus writes to the same effect: "*Multa præterea de sideribus atque eorum motu, de mundi ac terrarum magnitudine, de rerum naturâ, de deorum immortalium vi ac potestate disputant, et juventuti tradunt*." From this, as well as many other similar statements in reference to the barbarous inhabitants of other nations, we deem it more than probable that the observation of the simplest facts in connection with the heavenly bodies was common to all nations; and, as a consequence thereof, the length of a year, the duration of a lunar revolution, the particular rising of certain stars at certain seasons, and a few other common and obvious phenomena, might be predicted with a certain degree of accuracy, long before those observations assumed a scientific form, and long anterior to that time

from which we date the origin of astronomy as a science, properly so called.

The honor of arranging these observed facts into something like order, and, consequently, the invention of the science of astronomy, is attributed by different writers to various nations, namely, the Chaldeans, the Egyptians, the Chinese, and the Indians. Beneath the fine climate and in the level plains of Chaldea, the spectacle of the heavens, every where so striking, must have forcibly arrested the attention of a people just emerging from a state of barbarism; and the habit of observation was perhaps increased by the addiction of their sages to judicial astrology, and to endeavors to discover the imagined relations between the movements of the stars and human destinies. From the plains of Chaldea, this habit of observing astronomical changes made its way to the valley of the Nile, and hence the Egyptians soon became as well versed therein. The Chaldean and Egyptian records furnish materials from which the motions of the sun and moon could be calculated with sufficient exactness for the prediction of eclipses; and some remarkable cycles or periods of years, in which the lunar eclipses return in very nearly the same order, had been ascertained by observation; but when we remember, that in order to account for eclipses, these people supposed that the great luminaries were on fire on one side only, and that the temporary presentation of their darkened side toward the earth was the cause of the phenomenon, we can scarcely allow that they possessed any really scientific pretensions. Nor was this the only theory on the matter; another, equally absurd, was believed, to the effect that the sun and moon were carried round the heavens in chariots, closed on all sides, with the exception of one round hole, the occasional closing of which was productive of the eclipse. We might cite many other theories equally ridiculous, all of which tend to show that their whole knowledge of Astronomy was confined to a few plain and simple phenomena, the result of observation alone. No can we indeed wonder at this, for, considering the extreme imperfection of their means of measuring time and space, this was, perhaps, as much as could have been expected at that early period.

The Chinese date back their knowledge of astronomical science to a very early

of an universe, where suns like our own may be reckoned by millions, and where the planets which roll round them are beyond all our powers of vision; it shows us that the whole system to which our planet belongs is but a subordinate unit in a firmament of stars—that firmament but one among many, which, as vast in size and as glorious as our own, are scattered indefinitely through immensity, forming, doubtless, one stupendous system, bound together by fine relationships; these firmaments, however, placed so deep in space that to inferior telescopes they seem like faint streaks or spots of milky liquid upon the blue of the sky—and the aggregate of these not yet the whole, for, beyond the regions that have been penetrated by the telescope, there yet may stretch an undiscovered infinity. And, as we survey these marvelous truths, we are lost in the feeling of immensity, and of the comparative insignificance of this globe and its million of inhabitants. But this is soon followed by a sense of gratification, gratitude, and wonder, that to us has been permitted such a knowledge of the unbounded system of the universe. In speaking of astronomical discoveries, Schiller has said:

“All measureless, all infinite in awe,
Heaven to great souls is given;
And yet the sprite of littleness can draw
Down to its inch—the heaven!”

True indeed are the poet's words. Insignificant as man may appear, he has been permitted to penetrate, as it were, through all space, and become familiar with the laws of nature, at distances so enormous as to baffle our imaginations—to ascertain the relative density of our sun and planets, and to discover the laws by which the whole of the vast system is held together and maintained through countless ages in perfect security and order. By the revelations of the telescope, and its younger sister, the microscope, we are taught that “we are in the midst of being, whose amount, perhaps, we can not estimate, but which is yet all so exquisitely related, that the perfection of its parts has no dependence upon their magnitude—of being, within whose august bosom the little ant has its home, secure as the path of the most splendid star; and whose mightiest intervals—if Infinite Power has built up

its frame-work—Infinite Mercy and Infinite Love glowingly fill, and give all things warmth and lustre and life—the sense of the presence of God!” The infinite extent of this field, where no bounds can be set to our speculations, peculiarly shows the preëminence of astronomy among all other pursuits of human wisdom. In metaphysics, in literature, in the arts, ignorant as we are, we can assign limits, and supply, in imagination at least, all that may be wanting to perfection; but, in the works of nature, beyond our power of scrutiny, we see no end to our inquiries; we perceive only the littleness of man, and the nothingness and vanity of all his boasted attainments.

It must always be a speculation of great interest to trace the growth of any science, from the first feeble efforts which mark its infancy, to the majestic and matured systems which have been strengthened by discovery and established by time. In no science is this progressive improvement so well marked as in astronomy. Its onward march has been so rapid, and at the same time so progressive and continued, that we can follow its steps as distinctly and satisfactorily as we can trace the events of our own lives. For this reason, as well as to enable the uninitiated reader to comprehend the extent of the researches and the value of the discoveries in this branch of science, which have distinguished our own age, we propose briefly to recapitulate the leading features which mark the advancement of physical astronomy, from its first dawns to the state of excellence in which we now behold it; and, in the second place, to explain, as clearly and with as few technicalities as possible, the nature of these most recent discoveries, which have not only added to our knowledge of the structure of the universe, but have destroyed erroneous hypotheses which for years had been looked upon as true. Astronomy is, in all probability, the most ancient of all the sciences, and may even be considered to be coëval with the infancy of society itself, if the rude observations of shepherds and herdsmen may be taken into account. The shepherd, as he watched his flocks by night, and the children of the nomade patriarchs, as they made their couches beneath the cloudless Asiatic sky, would, from the curiosity naturally

Prussia, revived the Pythagorean doctrine. He was led to do this from his observation of the planet Mars, which appeared to be much larger sometimes than it did at others. He spent forty years of his life meditating upon the possible cause of this appearance, and at length came to the conclusion that the theory of its revolution round the earth was perfectly incompatible with this observed fact; while the theory which Pythagoras had advanced so long before, and which made the planet Mars and the earth both revolve about the sun, the former at a greater distance and in a larger circle than the latter, was amply sufficient to solve the difficulty. He had also long observed that apparent motion was not real, and concluded, therefore, that, although the sun appeared to move, it might really be at rest, while, on the other hand, the apparent rest of the earth might be but the illusion of our senses. With great boldness, therefore, he launched the solid earth from the position of rest assigned to it by Ptolemy, replaced the sun in the center of the solar system, and showed how simply, by this new arrangement, he could account for the apparent motions of the sun, moon, and planets.

It may appear somewhat surprising to some of our readers, that such confused notions respecting the constitution of our system should have so long prevailed, and that there should have been such difficulty experienced in acquiring a true notion of the disposition of its parts. Mr. Jackson,* an elegant writer on this and other subjects, has briefly and neatly accounted for them. "We see it," he observes, "not in *plan* but in *section*." And Sir John Herschel, who quotes this remark, adds the following observations:† "The reason of this is, that our point of observation lies in its general plane; but the notion we aim at forming of it is, not of its section, but of its plan. This is as if we should attempt to read a book, or make out the countries on a map, with the eye on a level with the paper. We can only judge directly of the distances of objects by their sizes, or rather, of their change of distance by their change of size; neither have we any means of ascertaining, otherwise than indirectly, even their positions, one among the other, from their apparent

places as seen by us. Now, the variations in the apparent size of the sun and moon are too small to admit of exact measure without the use of the telescope, and the bodies of the planets can not even be distinguished as having any distinct size, with the naked eye."

This system of the universe, originally conceived by Pythagoras and revived by Copernicus, was first propounded to the world by the latter philosopher in a work entitled *The Revolutions*, published about the middle of the sixteenth century. It was well received by the generality of accurate thinkers of that age, but it, at the same time, met with great opposition; and among its chief opponents was the celebrated Danish astronomer, Tycho Brahe. Noble and wealthy by birth, and enjoying the friendship of Frederick of Denmark, this philosopher converted a small island in the Baltic into a magnificent observatory, and devoted all his wealth to the erection of vast instruments to aid him in his constant observation of the heavenly motions. The result of his unremitting labors of twenty-one years' duration was an elaborate catalogue of the right ascensions and declinations of the stars, a knowledge of the true nature of comets, which, before his time, were conceived to be merely meteors, floating within the earth's atmosphere, together with a mass of observations, which subsequently fell into the hands of his friend and pupil, Kepler. Upon the death, however of Frederick, Tycho was driven by persecution from his beloved observatory and his country, and found a refuge in Bohemia, being received with honor by the Emperor Rodolph, at Prague. Here did he continue the labors which had been interrupted at Uraniberg, and here did he receive a visit from a young enthusiast, Kepler, a name which deservedly stands high in the annals of astronomical history. Kepler found himself a welcome guest at Prague, and soon afterward received, at the hands of the Emperor, an official appointment, which installed him as the calculating assistant to his Danish friend.

Kepler was one of those rarely gifted men whom nature has given to the world, to enlarge the boundaries of science—to enrich it by discoveries—and to lay the foundations of systems which the labors of future philosophers might ripen to maturity; he was ardent in temper, an en-

* *Letters on Various Subjects.*

† *Discourse on the Study of Natural Philosophy.*

thusiastic theorist, and invariably framed an hypothesis before he set to work to find out the facts that would serve for its establishment. Not so with Tycho—he was cautious, patient, enthusiastic, and persevering, and his whole life was spent in gathering material. Kepler had the advantage of a constant residence with his great master during the latter years of his life, and at his death he obtained the accumulated mass of observations which the incessant labors of Tycho had enabled him to collect. These observations, in fact, formed the groundwork of Kepler's discoveries; and the great services they were thus the means of rendering to Astronomy, sufficiently atone for the erroneous ideas they led Tycho to adopt in his rejection of the Copernican system of the universe. In the hands of Kepler, they produced the three most important discoveries which have ever been made in natural science. These discoveries have since passed by the name of Kepler's laws, and are to the following effect. First—that the planets revolve in elliptic orbits of small eccentricity, having the sun situate in one of the foci; secondly—that each describes, about the sun's center, equal areas in equal times; and thirdly—that the squares of the periodic times in which the several planets revolve, are to each other in the same proportion as the cubes of their mean distances from the sun are. In this third law, Kepler prophesied that this simple proportion would be found to exist between the times and distances of all the planets; so that, if the distance and periodic time of any one of them were known, and if the periodic times of the rest were observed by their successive returns to the same point of the sky, their respective solar distances might be all ascertained. "These laws of Kepler's constitute," remarks Sir J. Herschel, "the most important and beautiful system of geometrical relations which have ever been discovered by a mere inductive process, independent of any consideration of a theoretical kind. They comprise within them a compendium of the motions of all the planets, and enable us to assign their places in their orbits at any instant of time past or to come, (disregarding their mutual perturbations,) provided certain purely geometrical problems can be numerically resolved."

But even the great mind of Kepler was led away by some of those most extraor-

dinary speculations and theories which frequently hold captive even the greatest genius. In 1619 he published a work on *Harmonics*, in which he informed the world the earth was a living animal; for, "when a stone was thrown into the deep clefts of a high mountain, a sound was returned from them; and when it was thrown into one of the mountain lakes, which, without doubt, were bottomless, a storm immediately arose; just as a ticklish animal would shake its head, or run shuddering away, when a straw was thrust into its ear or nose." The same work also contains an assertion that the heavenly bodies were engaged together in performing a concert of music, in which Jupiter and Saturn took the base; Mars, the Earth, and Venus the tenor; and Mercury the treble.

At the very period when Kepler was working out his beautiful generalizations, Galileo was constructing that instrument, by the aid of which so much has since been effected—the Telescope. In the early part of the seventeenth century, the children of an optician of Middleburgh, named Jansen, while amusing themselves in the shop, accidentally arranged a couple of magnifying glasses in such a way, that when they looked through them at the church steeple, it appeared to them both larger and nearer. Jansen took advantage of the discovery, and fitted up a similar combination in a rude frame, but proceeded no farther in the matter. The rumor of this discovery reached Galileo while on a visit at Venice, and he immediately set about experimentally ascertaining its truth, although he had never seen the contrivance, and must therefore be regarded as the true and sole inventor of the instrument in that form alone in which it could be applied to any scientific use or discovery. He carefully adjusted a convex and concave lens of glass to each other, and found that any object viewed through them became undeniably larger and more distinct. The problem was solved, and Galileo had presented the first telescope to the world. The interest excited by this discovery transcended all that has ever been inspired by any of the other wonders of science. After having exhibited his new instrument for a few days, he presented it to the Senate of Venice, and constructing another for himself, he proceeded with that to examine the heavens. He had not long directed it to this, the field which

has ever since been its principal domain, before he was rewarded with a succession of brilliant discoveries. The belts and satellites of Jupiter for the first time revealed themselves to the human eye; other stars, unseen before, met him in every quarter of the heavens to which he turned. Saturn showed his singular encompassing ring. The moon unveiled her mountains. The sun himself discovered spots of dark lying in the midst of his brightness. But a singular confirmation of the truth of the Copernican system remains to be related. It had been objected to that system that, were it true, Venus should appear sometimes horned like the moon. To this Galileo replied by admitting the conclusion, and averring that, should we ever be able to see its actual shape, it *would* appear so. It is easy to imagine with what force the application would strike every mind when the telescope confirmed this prediction, and showed the planet just as both the philosopher and his objectors had agreed it ought to appear. But Galileo's support of the Copernican system drew down upon him a religious persecution. An outcry was raised by the ignorant bigotry of the time, on the ground that in maintaining the doctrine of the earth's motion round the sun, he was contradicting the language of Scripture, where, it was said, the earth was constantly spoken of as at rest. For the remainder of his life he was subjected to the persecution of the Inquisition, was imprisoned, and was compelled to abjure his doctrines. At length, weighed down by persecution and sorrow, the old man breathed his last at the advanced age of seventy-eight.

But the mantle of Galileo fell upon a worthy successor, Newton, whose discovery of the great and universal principle of gravitation must be looked upon as the next great step in the progress of Astronomy. Before his time, Kepler had caught a glimpse of the general law of the inertia of matter, as applicable to the great masses of the heavenly bodies, as well as to those with which we are conversant on the earth. Galileo, too, by his investigations of the laws of falling bodies and the motions of projectiles, contributed to lay the foundation of a true system of dynamics, by which motions could be determined from the knowledge of the forces producing them, and forces

from the motions they produce. Hooke went yet farther, and obtained a view so distinct of the mode in which the planets might be retained in their orbits by the sun's attraction, that, had his mathematical attainments been equal to his philosophic acumen, and his scientific pursuits been less various and desultory, it can hardly be doubted that he would have arrived at a knowledge of the law of gravitation. But all these researches must be looked upon as only smoothing some of the minor obstacles, and preparing a state of knowledge in which powers like Newton's could be effectually exerted. The discovery by Newton of the great and universal principle of gravitation is so generally known, that it would be utterly out of place to attempt to enter into any detail concerning it, or the train of reasoning by which the gigantic mind of its discoverer was led to detect, or by which he successfully proved it. Suffice it then to say, that all the celestial motions known in his time were shown by Newton to be consequences of the simple law that every particle of matter attracts every other particle of matter in the universe, with a force proportional to the product of their masses directly, and the square of their mutual distance inversely, and is itself attracted with an equal force. From this law he explained how an attraction arises between the great masses of which our system consists, regulated by a law precisely similar in its expression; how the elliptic motions of planets about the sun, and of satellites about their primaries, according to the exact rules inductively arrived at by Kepler, result, as necessary consequences, from the same law of force; and how the orbits of comets themselves are only particular cases of planetary movements. Thence proceeding to applications of greater difficulty, he explained how the perplexing inequalities of the moon's motion result from the sun's disturbing action; how tides arise from the unequal attraction of the sun, as well as of the moon, on the earth and the ocean which surrounds it; and, lastly, how the precession of the equinoxes is a necessary consequence of the same law. Such is a brief abstract of the discoveries of Newton. And we may add that they are clearly explained and elegantly illustrated in one of the works now before us—*The Planetary*

and Stellar Universe, to which we refer such of our readers as may be desirous of becoming more fully acquainted with them. Of the mode by which gravity, that mysterious power, which alike guides the apple in its fall to the earth and the planets in their vast revolutions, causes its effects, we are entirely ignorant. It is, nevertheless, a circumstance extremely curious, that effects, such as are those of gravity, should be produced; that apparently so small a body as Mars, for instance, should be able sometimes to impede and at other times to expedite the earth in its course. The more we reflect on this matter, the more mysterious it appears. It is truly wonderful that planetary influence should exist, and that the ingenuity of man should have detected it. Astronomy reveals things scarcely inferior in interest to the mysteries of astrology. It does not, indeed, pretend to show that the planets act on the fortunes of men, but it explains after what manner and according to what laws they act on each other. And to this we may add, that this mysterious power of gravity, emanating from the source of all power, and incessantly acting, furnishes us with an impressive illustration of a never-failing Providence. *Each* particle of matter, *every* instant shares in the superintending power of the Great Being who wills that the system of the world shall be upheld by the principle of universal attraction. By whatever agency he has ordained the operations and laws of gravity to be executed, we can not but ultimately refer them to his immediate care.

Men in general know nothing of this interesting power. They consider the sun as dispensing merely light and heat; they perceive that our earth, without its benign influence, would be a dark lump of matter, barren and desolate. Few know that, besides the effects of light and heat, we derive from the sun another source of preservation. Solar gravity is as essential to our welfare as light and heat; the effects of the latter, indeed, we feel instantaneously, but the former is not perceptible to our senses. It silently and incessantly operates in preserving to us all that gladdens our existence here. Nor would its suspension be immediately observed. But a continued suspension would inevitably be followed by a complete annihilation of the human race, and that under circumstances the most de-

plorable that the mind of man can imagine.

But we must in this place remark, that not only do the planets of our system gravitate toward the sun, but they are so attracted toward each other, according to the same law laid down by Newton that is to say, with forces that are directly as their masses, and inversely as the squares of their distances. This attraction of one planet by another naturally produces a different motion to what would have been the simple effect of the gravitating power of the sun. Thus, for example, there are certain inequalities in the earth's motion produced by the disturbing forces both of sun and moon, and, therefore, to trace the orbit it describes, and to find its position at a time, we must take into account these antagonistic forces. These inequalities in planet's motion, caused by the attraction of a third body, are called its *perturbations*; and we are more particularly anxious to draw attention to this matter, since, as we shall hereafter have occasion to see, it was from the observation of the perturbations of the planet Uranus, that the most recent astronomical discovery was effected. We allude, of course, to the discovery of the new planet. The problem of two bodies gravitating to one another was fully solved by Newton; but when he attempted by a similar process to find the place of a body attracted by one, and at the same time disturbed by another body, the instruments he employed were insufficient to combat the extreme difficulties of the case. His inquiries, however, were not altogether fruitless; he detected five very remarkable inequalities in the moon's motion which he explained by the disturbing force of the sun; and his theories, verified by the researches of succeeding mathematicians, and by methods of calculation essentially different from those which he employed, create in us the greatest astonishment, that a man, by the force of his single genius, no way benefited by the speculations of those who went before him, no way assisted by the efforts of his contemporaries, should have made such progress in a science so abstruse. "I estimate his merit," remarks a clever writer,* "we must take science as I found it and as he left it; he did not

* Woodhouse—*Elementary Treatise on Astronomy*.

merely add to or beautify a system. Newton's merit was more than that of having left marble what he found brick, for he laid the very foundations of physical Astronomy, and furnished the means and materials for putting them together." And Sir J. Herschel,* speaking of this great man, remarks:

"Whatever way we turn our view, we find ourselves compelled to bow before his genius, and to assign to the name of Newton a place in our veneration, which belongs to no other in the annals of science. His era marks the accomplished maturity of the human reason, as applied to such objects. Every thing which went before might be more properly compared to the first imperfect attempts of childhood, or the essays of inexperienced, though promising, adolescence. Whatever has since been performed, however great in itself, and worthy of so splendid and auspicious a beginning, has never, in point of intellectual effort, surpassed that astonishing one which produced the *Principia*."

For years after the death of Newton his followers had full occupation in verifying his discoveries, and in extending and improving the mathematical methods which, it had now become manifest, were to prove the key to an inexhaustible treasure of knowledge.

"The legacy of research which had been left by Newton was indeed immense. To pursue through all its intricacies the consequences of the law of gravitation; to account for all the inequalities of the planetary movements, and the infinitely more complicated, and to us, more important ones, of the moon; and to give what Newton, himself, certainly never entertained a conception of, a demonstration of the stability and permanence of the system under all the accumulated influence of its internal perturbations; this labor and this triumph were reserved for the succeeding age, and have been shared in succession by Clairaut, D'Alembert, Euler, Lagrange, and Laplace. Yet so extensive is this subject, and so difficult and intricate the purely mathematical inquiries to which it leads, that another century may yet be required to go through the task. The recent discoveries of astronomers have supplied matter for investigation, to the geometers of this and the next generation, of a difficulty far surpassing any thing that had before occurred. But the resources of modern geometry seem, so far from being exhausted, to increase with the difficulties they have to encounter; and already, among the successors of Lagrange and Laplace, the present generation has to enumerate a powerful array of names, which promise to render it not less celebrated in the annals of physico-

mathematical research than that which has just passed away."

Thus wrote Sir John Herschel, more than thirty years ago; and we shall have occasion to see that, even in that short period, we have to boast of many brilliant astronomical discoveries, and many important additions to our knowledge of that interesting science.

But, during the progress of discovery thus briefly narrated, the telescope was not neglected. The original instrument of Galileo, consisting as it did of a combination of lenses, depended upon the phenomenon of the refraction of light for its utility. Refracting telescopes are still in use, and their illuminating power depends entirely upon the dimensions of the object-glass. In the year 1666, Newton turned his attention to telescopes; and, finding that there were many disadvantages to contend against in refracting substances, he was led to the construction of what has since been called the Newtonian, or reflecting telescope. Some years after the construction of the Newtonian, another class of reflecting telescopes was invented by Dr. Gregory, in which, from a difference of arrangement, the observer is stationed in a line with the object, whereas, in the former he is at right angles to it. The larger reflecting telescopes of the present day are usually constructed on the Newtonian plan, but smaller ones are more frequently fitted up after the manner of Dr. Gregory. Just as the illuminating power of the refracting telescope depends upon the size of its object-glass, so the illuminating power of the reflecting telescope is determined by the area of its object-speculum, because it is of the light which this receives that the image in the focus is formed. The first reflecting telescope ever made was molded by the hands of Sir Isaac Newton, and was furnished with an object-speculum measuring two inches and three tenths in diameter. Hadley first used a speculum of six inches; Watson, Short, Ramage, and Tulley, by slow degrees, extended its dimensions to nine inches, fifteen inches, and three feet.

Toward the close of the last, and in the beginning of the present century, the improvements in the construction of telescopes received a vast impulse from the labors of Sir William Herschel. Educated under circumstances by no means

* *Discourse on the Study of Natural Philosophy.*

favorable to great powers, the ardor of his mind surmounted every opposing difficulty; and from a humble, though respectable station in life, he raised himself to a rank in society which genius, when directed and sustained by virtue, seldom fails to reach. Though his scientific studies did not commence till he had arrived at the middle period of life, yet he pursued them with all the energy of youthful devotion, and with that dauntless perseverance which renders genius almost omnipotent. Every step, indeed, of his astronomical career was marked by discoveries of the most splendid character. New planets, new satellites, new celestial bodies, were successively presented to science; and man was enabled to extend the power of his senses, as well as the energy of his reason, to those remote regions of space where his imagination had hitherto scarcely dared to wander. His invention of instruments and methods of observation, too, were no less surprising than the wonders which they disclosed. Obstacles insuperable to other men he speedily surmounted. The telescope which Galileo held in his hand as a portable toy, became, under Herschel's direction, a machine which supported the astronomer himself, and which mechanical energy was requisite even to move. There was no continuity, in short, between his inventions and discoveries, and those of astronomers immediately preceding him. He ventured upon a flight which left them at an immeasurable distance; and he penetrated into regions, of which they dared scarcely form a conception. After having constructed a great variety of telescopes, both of the Newtonian and Gregorian forms, he at length determined to make one of a still larger size, and, after some failures, and many obstacles, surmounted by his patience and genius, he completed, in the year 1789, his gigantic telescope. This instrument was forty feet in focal length, and its object-speculum four feet in diameter, weighing, when newly cast, two thousand one hundred and eighteen pounds. But the triumph of mechanical achievement, in the construction of the telescope, was reserved for Lord Rosse, a nobleman, who, imitating the example of his great predecessor, Tycho Brahe, devotes his wealth, as well as the energies of his mind, to astronomical research. By the application of beau-

tifully devised machinery to the task of polishing, he completed a telescope whose object-speculum is of the enormous diameter of six feet, while the metal of which it is composed is of faultless material and perfect form. Lord Rosse commenced his investigations and labors in the year 1826, with a host of discouraging facts before him, of which the great difficulty of casting and polishing the specula was not the least. In addition to this, public opinion favored the refracting telescope; it had just received great strength, in consequence of the introduction of large achromatic lenses made by Guinand. Nevertheless, he continued these investigations, which extended over a period of eighteen years, for he found that he had nothing in history to assist him. The failure of Herschel's four-foot speculum, (it having been removed in 1822, and replaced by an eighteen-inch reflector,) the reluctance of the opticians to make large specula, on account of the risk attending it, and the ignorance of the world of the method by which Short had been so successful in the construction of his Gregorian telescopes, did not, however, discourage Lord Rosse. He began at the beginning, and so perfected the whole; his attempts were first directed to the construction of fluid lenses; these being unsuccessful, the whole energy of his mind was turned to the reflector, and, after having completed one with a three-foot object-speculum, he commenced, and completed, at the expense of twelve thousand pounds, a larger telescope, whose object speculum is of the enormous dimensions of six feet.

It would be entirely out of place, in an article whose object is to give a detail of the most interesting discoveries in Astronomy, to enter into any description of the means by which the noble philosopher was enabled to perfect this mighty instrument, of the alloys on which he experimented, or of the beautiful machinery contrived for polishing the immense speculum, when cast. Our remarks on the telescope have been simply intended to show how, from the mere toy in the hands of Galileo, it has been brought, by human ingenuity, to the comparative perfection exhibited in the instrument of Lord Rosse. But before we quit this subject, we may be permitted a few remarks as to the comparative powers of former instruments and that to

which we have above adverted. On this subject thus writes Dr. Nichol:

"The size of the lens or mirror is not merely a *general* indication of the power of the telescope, inasmuch as if each instrument were tested separately, in respect chiefly of the reflecting or transmissive qualities of the metal or glass, we might obtain by means of it much more than a general or rough comparative estimate. But since nothing is dependent on minute exactness in speculations concerning the enormous distances we are about to mete out within infinitude, it is enough for present purposes that we can reach a tolerable approximation. Now, regarding his own telescopes, Herschel computed that the seven-foot reflector had a power to penetrate into space, which, compared with that of the naked eye, was twenty and a quarter; the ten foot, a comparative power of twenty-eight and a half; the twenty foot, of seventy-five; the twenty-five foot of ninety-six; and the forty foot, with its four-foot mirror, the immense power of one hundred and ninety-two. It is not easy to compare Lord Rosse's telescopes with these instruments, inasmuch as their various relative qualities would require to be ascertained by direct experiment; but if, as seems fully established, his Lordship's three feet speculum is much superior in space-penetrating power to the largest disk in possession of his great predecessor,* we shall be obliged to endow the six-foot mirror with an efficacy to pass without difficulty into space at least five hundred times further than is possible for unassisted vision; in other words, it will descry a single star six thousand times more remote than an average orb of the first magnitude; or, though it were separated from our abodes by an interval so tremendous that, were a new star, at a similar distance created now, its light, even though its velocity be next to inconceivable, would travel through the intervening spaces probably for more than *six thousand years*, ere, by reaching this earth, it could tell of a new existence having been summoned from the void."—*System of the World*, pp. 7, 8, 9.

Can we, by any possibility, form any conception of distances so enormous? In round numbers it may be said that light travels at the rate of one hundred and ninety-two thousand miles in a second, or that it performs its journey from the sun to the earth, a distance of ninety-five millions of miles, in about eight minutes.

* "It is wrong to suppose the space-penetrating power of a telescope simply depending on its aperture. Certainly, a most important feature is the *definition*, arising from the figure of the speculum. Lord Rosse's telescopes derive their superiority chiefly from their excellence in this latter respect. To look through Herschel's four-foot mirror, compared with the three-foot, is like a short-sighted person looking at the stars without his spectacles."—*Nichol, note to the above.*

And yet, by this instrument, we are informed, that there are stars and systems so distant, that the ray of light which impinges on the eye of their observer, and enables him to detect it, issued from that orb sixty thousand years back. Thus while we gaze upon that star, we view it not as it may exist at present, but as it did exist many thousand years ago. Such an idea takes us back into an eternity of time, in which the mind loses itself as in a dream.

In closing his remarks on the gigantic telescope of Lord Rosse, Dr. Nichol gives it as his opinion that we have closely approached the limits of attainable, that is, of useful telescopic power; and it must be allowed that he gives some very excellent reasons for such an opinion; the chief of which are, the difficulty in the employment of great telescopes, the necessity of obtaining eye-pieces corresponding in power to the specula of the instruments, and the unsteadiness of the currents of our atmosphere, which are, of course, more highly magnified as the power of the telescope is increased. "Precision and definiteness entirely vanish; and we are told, with sufficient emphasis, that there is a Fate the loftiest genius will never vanquish—that which confines man's successes within possibilities constituted by the conditions of his Earth." But, although we are willing to acknowledge that such obstacles are great, and, indeed, at the present time may appear insuperable, yet we should hesitate in thus setting a limit to telescopic improvement. The history of every science furnishes us with examples of difficulties almost as great, overcome by the patience, ingenuity, and increased knowledge of mankind; and we may remark further, that many of our most important discoveries in science would still have remained unknown to us, had the predictions of philosophers been so far attended to, as to have deterred others from venturing on the path which led thereunto. We do not, for a moment, wish to be understood as asserting that there is no limit to telescopic improvement: in our desire to see yet more powerful instruments, we may be carried away by hopes never to be fulfilled; but at the same time, with so many instructive lessons before us, we repeat our belief that it is a dangerous venture to prescribe any limit to scientific progress.

But we must now turn our attention to

discoveries in Astronomy, and particularly to the revelations of the mighty tube of Lord Rosse, with its vast eye of *six feet diameter*.

And first, then, of the planetary system. Up to the beginning of the present century, six planets were known to exist; namely, Mercury, Venus, the Earth, Mars, Jupiter, and Saturn, revolving round the sun in elliptic orbits, and in the order in which we have named them, Mercury being nearest to the sun, Saturn the farthest removed from it. At the close of the last century, Sir William Herschel discovered another planet beyond the planet Saturn at a distance of 1,840,000,000 of miles from the sun, and completing its revolution round that luminary in about eighty-four years. In compliment to his patron, Herschel named this planet the *Georgium Sidus*; but both in England and on the continent it has since been better known as *Herschel*, or *Uranus*. That this system of worlds is a connected cluster, is evident from the following facts: the sun rotates upon its axis, each planet revolves in an orbit round it, and rotates upon its axis; and in the same direction, that is, from west to east; the satellites or accompanying moons, of which the Earth has one, Jupiter four, Saturn seven, and Uranus six, revolve round their primary planets, and also rotate around their axes in the same normal direction;* the whole, planets and satellites, move in a plane nearly coinciding with the direction of the sun's equator. The respective distances of the several planets from the sun is determined by a law which admits of simple and definite expression; the area or space included between any two contiguous orbits is twice as large as the area included in the next planetary interval, proceeding inward, and half as large as the next interval, proceeding outward. This harmonious law, however, which so satisfactorily proves that the individual planets of our system are united together by some comprehensive relation, which has meted out their several distances, and appointed to each the orbit in which it shall roll, was not fully ascertained until the present century. Until that period,

* The satellites of Uranus are an exception, although the only one to this law; they have the remarkable character of moving in a retrograde direction, and in orbits nearly in the same plane, and almost perpendicular to the ecliptic.

a void was conceived to exist between Mars and Jupiter; but, at the commencement of the present century, several astronomers, struck with the regularity of the respective distances of the other planets from the sun, and from each other, conceived the idea that this supposed void might contain the orbit of another planet, till then unknown, and they therefore deliberately set themselves to the task of searching for it. The result was, the discovery of two new planets, *Ceres* and *Pallas*, to which *Juno* and *Vesta* were soon afterward added. These four minute planets move in orbits nearly coinciding each with the other, and all pass through one common point of space at one point of their revolutions. Their disks appear to be not circular but angular; and it is conceived, that, at some distant period, they constituted one large sphere, which was broken up by internal violence into the fragments now circling in orbits of their own, and all returning, from time to time, to the same position in space which was occupied by the four at the moment of disunion. When the first two were discovered, Sir William Herschel, who gave them the name of *asteroids*, from their resemblance both to planets and comets, predicted that many others would be discovered; a prediction soon after verified by the discovery of *Juno* and *Vesta*, and more recently by that of *Astræa*. This small planet, which, if the supposition above alluded to be true, must also have formed, with the four other asteroids, one large planet, was discovered by Herr Hencke, of Berlin, and has since been noticed at the chief observatories of Europe.

But the interest of the discovery of an obscure asteroid sinks into insignificance when compared with that which has so recently been made known to the world; we allude to the body which at present goes by the name of *Le Verrier's planet*, and which is one of the largest of our system. This discovery of itself is an event of no inconsiderable consequence; but it assumes a new interest, when it is remembered that it was not the result of chance or of a fortunate supposition, nor was it even effected by the increased power of our telescopes, but was the consequence of the unaided power of profound thought, and of abstract mathematical reasoning. There has not, in the whole history of science, occurred any more striking event

than this. In general, it will be seen from what we have before said, observations have preceded science, and theories have been the result of previously known facts; but, in this instance, science has only had to follow the steps of theory, and to look at the exact point indicated for the unknown planet which theory had alone as yet seen.

Until the year 1846, then, as we have already observed, Uranus was supposed to be the last and farthest planet of our solar system; and its immense distance from the sun, a distance amounting to 1,840,000,000 of miles, gave rise to the supposition that either it was, indeed, the most remote orb of our system, or that, if there were others still further removed, they could never be detected. Thus, in one of the works now before us, we have an expression of this opinion in the following passage:

"It is conceived that the planet Herschel, or Uranus, as it has also been named, is attended by six satellites; two annular appendages have also been suspected to surround it. But into that chill corner of space, where the cheerful sun has dwindled to a minute inconspicuous star, scarcely exceeding the planet Jupiter in size, and where its vivifying influence is less than with us by thirteen hundred and sixty times, the restless curiosity of man has failed to penetrate with any certainty; the dull, cold Herschel, upon the threshold of endless night, draws the curtain of obscurity around the theater that has been granted to the searching investigations of human intellect, and beyond lies the unknown, unmeasured, star-filled universe of God!"—*Planetary and Stellar Universe*, pp. 71, 72.

Such conceptions as these, in which a line is marked out beyond which intellect is supposed to be unable to pass, have, indeed, been common in almost all of the physical sciences; but, one after another, these artificial barriers have been thrown down; and, in virtue of the prerogatives given to it by God, inquiry has, as in the instance before us, disowned the restraint and burst all bonds. For, outside that which seemed to be the extreme verge of our system, it is now clearly proved that a mighty planet, exceeding Uranus in size, has been rolling in orbits of two hundred and seventeen years, unknown in its outer darkness, until its blind but strong influence on the motions of Uranus has at length betrayed its presence. The account of this discovery,

and the calculations on which it is founded, are contained in several numbers of the *Comptes Rendus*, but, as they are extremely lengthy, we must content ourselves with an outline of them.

The irregularities of the orbit of Uranus having been for a long period a difficulty to astronomers, induced M. Le Verrier to a more close examination of that planet's motions, and he found, that of the whole amount of irregularity in its path, or of its *perturbations*, only a comparatively small part could be accounted for by the attraction of any known forces. Upon examining, too, tables which had been constructed of the orbit of Uranus, he found that they had in no way agreed with the latest observations. These discrepancies he conceived might be either due to want of precision in theory, or want of exactness in observations; or Uranus might be subject to other attractions than those of the sun, Jupiter, and Saturn; and he resolved to endeavor to determine the cause of these perturbations. Finding so much inaccuracy in the data and calculations on which the previous tables of the planet's orbit were founded, he set himself to the laborious task of investigating and calculating every thing afresh, with the utmost rigor, and, after much perseverance, he determined with great nicety the amount of perturbation in the orbit of Uranus due to the attraction of Jupiter and Saturn. With these corrected data before him, he proceeded to compare the *calculated* path of the planet with its actually observed positions; and he came to the conclusion, not merely that there was difficulty and discrepancy in the comparison, but that, on grounds of the strictest geometrical reasoning, none of those known forces were adequate to produce the observed irregularities of the planet's course. Several ways had been already suggested of getting rid of the difficulty—the resistance of the ether—a vast satellite of Uranus—some variation in the law of gravity at that enormous distance from the sun—the shock of a comet, or, lastly, an unknown planet. But M. Le Verrier showed that all these suppositions, except the last, were inadmissible, and that, if the disturbing force proceeded from an unknown planet, the stranger must be, not *within* the orbit of Uranus, because, if a large body, it would disturb Saturn's orbit; if a small one, it

would not be adequate to produce the actual amount of disturbance in that of Uranus; nor, for the same reasons, *near* on the outside of the orbit of Uranus; but far enough *without* the orbit of Uranus to act upon it, without acting upon that of Saturn, and large enough to act upon Uranus for long and continuous periods of time. According to Bode's law of planetary distances which we have already enunciated, namely, that the planets double on one another in their distances from the sun as they are more remote in the system, this new planet ought to be *twice* as far from the sun as Uranus. And this probability became almost a certainty; for, as its distance can not be much less, so it can not be greater, for example, *treble* the distance of Uranus; because, as in that case it must be of enormous mass, it must act upon Saturn as well as Uranus, and its great distance from *both* planets would make its influence on each *comparable*, whereas, there is no trace of any such influence on the orbit of Saturn. Further, such a body, acting on the orbit of Uranus, must be, without doubt, in much the same plane as that planet; that is, must be looked for nearly in the ecliptic.

The paper, of which we have made this abstract, was read before the Academy of Sciences on the first of June, 1846; and in a second paper (*Comptes Rendus*, August thirty-first, 1846,) Le Verrier proceeded to fix still more exactly the place, size, and distance of the yet unseen planet. His idea was, that it was a body many times the size of the earth, and not much less than Saturn, taking more than two centuries to revolve about the sun, at a distance thirty-three times greater than the Earth. Within one month after M. Le Verrier had thus minutely fixed, beforehand, the place of this mysterious body, it was actually seen. On the twenty-third of September, Dr. Galle, of the observatory at Berlin, received a letter from Le Verrier, urging him to look out sharply for the new star, which possibly might be recognized by its disk. That very evening, Galle, on comparing Bremiker's excellent map with the heavens, observed, near the place fixed by Le Verrier, a star not marked by Bremiker. It was compared three times that night with a known fixed star, and a planetary motion was suspected;

the following night it was again observed and its motion was confirmed, and agreed perfectly with its discoverer's announcement; and, on the third night, September twenty-fifth, Galle observed it five times, and Encke ten, and the place of the planet had again changed, and as Encke observed, "the place of the planet agrees *within one degree*." This slight difference between the calculation as to the position of the new planet by the theory of Le Verrier, and the actual observation by Galle and Encke, is perhaps the most striking fact connected with the discovery. In a note by M. Le Verrier to the Academy, on this point, he observes:

"My error in calculation will be found exceedingly small, when the slight nature of the perturbations, upon which I determined the position of the new planet, is taken into consideration. This success must inspire a hope, that after thirty or forty years' observations of the new planet, astronomers may use it in its turn as a means of discovering the next that follows in the order of distance from the sun. They will, unfortunately, soon arrive at stars invisible on account of their immense distance from the sun, but whose orbits may be correctly ascertained by theory."

Since this discovery, the planet has been frequently observed, both in our own country and in many parts of the continent. Its present distance, expressed in common measure, is about 3,200,000,000 English miles from the sun, and about 3,100,000,000 from the earth. Its distance from Uranus, whose motions it disturbs, is about 140,000,000 of miles. Its diameter is estimated at 50,000 miles, that of Uranus being 35,000, of Jupiter 86,000, of Saturn 79,000, of the Earth 8000, while the diameters of the other planets are less than that of the earth. Thus, with the exception of Jupiter and Saturn, the new planet is the largest in our system. Its cubic bulk is to that of the earth as two hundred and fifty to one. Considering that Jupiter, Saturn, and Uranus are each attended by a train of satellites, it appears extremely probable that the new planet will have a similar accompaniment. Indeed, a subsequent observer, Mr. Lassell, of Liverpool, has stated his belief that he has discovered not only one accompanying satellite, but also the existence of a ring round the planet. "With respect to the existence

of the ring," observes Mr. Lassell,* "I am not able absolutely to declare it, but I received so many impressions of it, always in the same form and direction, and with all the different magnifying powers, that I feel a very strong persuasion that nothing but a finer state of atmosphere is necessary to enable me to verify the discovery. Of the existence of the star, having every aspect of a satellite there is not the shadow of a doubt." These matters, however, can not be determined until the observations of the planet have been continued for a longer period.

But, although the merit of this discovery is unquestionably due to the French philosopher, still it is gratifying to know that an English astronomer was following close in his wake, nay, that the planet had actually been observed in this country a month earlier, but its announcement was postponed from a desire to make more complete and accurate observations with regard to it. At the meeting of the British Association, on the occasion of resigning the chair to Sir R. Murchison, Sir J. Herschel stated, that among the remarkable astronomical events of the past twelvemonth, it had added a new planet † to our list, adding these remarkable words: "It has done more, it has given us the probable prospect of the discovery of another. We see it as Columbus saw America from the shores of Spain. Its movements have been felt, trembling along the far-reaching line of our analysis, with a certainty hardly inferior to that of ocular demonstration." Now, the confidence with which this assertion was made, depended, first upon a statement of the late illustrious astronomer Bessel, made to Sir John in July, 1842, that the motions of Uranus could not be accounted for by the perturbations of the known planets, and that it was highly probable that the deviations in question might be due to the action of an unknown planet; secondly, from the remarkable calculations of M. Le Verrier, corroborated by Sir John's knowledge that a similar investigation had been independently entered into, and a conclusion as to the situation of the planet, very nearly coincident with M. Le Verrier's,

arrived at (in entire ignorance of his conclusions) by a young Cambridge mathematician, Mr. Adams. Professor Challis has since published* a statement of the steps by which Mr. Adams was led, by his spontaneous and independent researches, to the conclusion that a planet must exist more distant than Uranus. As we conceive this matter to be one of great historical moment, and as it has been the cause of much expression of bad feeling from the journalists across the channel, we need make no apology for briefly stating the real facts, which we abridge from the statement of Professor Challis.

Mr. Adams had long formed the resolution of trying, by calculation, to account for the anomalies in the motion of Uranus on the hypothesis of a more distant planet, but it was not until the year 1843 that he had time for pursuing the subject. In September, 1845, Mr. Adams communicated to Professor Challis, as also to the Astronomer Royal, calculations which he had made with regard to the assumed exterior planet, deduced entirely from unaccounted-for perturbations of Uranus. M. Le Verrier's first paper, as we have already said, was published in June, 1846, and the assumed position of the planet was very nearly the same as that assigned by Mr. Adams. This coincidence as to position, from two entirely independent investigations, naturally inspired confidence, and the Astronomer Royal suggested a rigorous search after the hypothetical planet; a task which was undertaken by Professor Challis, who commenced his observations on the twenty-ninth of July. On the fourth of August, he recorded a place of the planet; and on the twelfth of August, he again observed a star of the eighth magnitude in a position of the heavens which he had examined without observing it on the thirtieth of July. Of course this was the planet; the place of which was thus recorded a second time, in four days of observing.

" 'A comparison,' adds Mr. Challis, 'of the observations of July thirtieth and August twelfth, would, according to the principles of search which I employed, have shown me the planet. I did not make the comparison till after the detection of it at Berlin, partly, because I had an impression that a much more

* A letter to the *Times* newspaper, published October 13th, 1846.

† Alluding to the planet Astræa, of which we have before spoken.

* *Athenæum*, October 17th, 1846.

extensive search was required to give any probability of discovery, and partly from the press of other occupation. The planet, however, was secured, and two positions of it recorded six weeks earlier here than in any other observatory, and in a systematic search expressly undertaken for that purpose.*

OUR SUN AND PLANETS.

Our sun, with its attendant planets, our world being one amongst them, is placed near the center of a bed, or firmament of stars, which, when traced throughout its different directions, is found to encircle the whole sphere of the heavens; it has the form of a flattened circular disk, with one of its edges divided in the direction of its plane, throughout nearly half its circumference. The individual stars composing this bed, although of countless multitudes,* are yet at immense distances from each other, so great is the space comprising the whole—it being impossible for any of these stars to be so near to us as two hundred thousand times the distance of the sun. This bed or firmament of stars, of which our sun is merely a grain of the gold-dust, is the Milky Way. But wonderful and magnificent as is this our galaxy, what shall we say, or what conception can we have of the magnitude of the universe, when we learn that it is but one out of nearly three thousand similar galaxies, incomparably larger than itself, and soluble into distinct stars, while others more distant, yet dimly visible, only require advanced powers in the instrument of vision, to yield, according to every analogy, a similar result! The forms of these nebulae, as they are called, are endless and varied; but it is a curious fact, that one in particular—and that, too, situated at nearly the remotest point to which our telescopes carry us—is supposed to bear a more striking resemblance to the system of stars in which our sun is placed, than any other object that has yet been des-

cribed in the heavens. The younger Herschel describes it as a "brother system, bearing a real analogy of structure to our own." It consists of a bright, round nucleus, surrounded at a great distance by a nebulous ring, which appears *split* through nearly the greater portion of its circumference, being the precise aspect in which our Milky Way would present itself to the inhabitants of an equally distant part of this visible region of creation. A curious fact in connection with these firmaments or clusters, is the peculiarity of the forms they assume, which, from their supposed resemblance to terrestrial objects, have caused astronomers to distinguish them by the appellations of *dumb-bell* nebula, *crab* nebula, *spiral* nebula, etc. It is remarkable, too, that among the clusters of stars of simple forms, there appears to be a preponderance of great central masses, resulting, in all probability, from the power of universal attraction. Sir William Herschel conceived that this prevalence of a clustering power was indicated by another feature of those globular masses. The light at their central parts, arising from the degree of compression among the orbs there, is not uniform, and bears no uniform relation to the size of the sphere within which the object is contained. It manifests, therefore, not a varying *apparent* concentration about their centers, but a *real* variation; and with this illustrious philosopher it went to establish "amongst those groups a series of aspects, each of which, is a step in some stupendous evolution, to which, as the ages roll, they may be subject—bearing them onward from the condition of collections of stars, comparatively sparse, to ripened spheres, whose centers approach toward an uninterrupted blaze of light."

"The elevation to which this idea leads," remarks Dr. Nichol, "is, indeed, a dizzy one, far aloft from the usual haunts of human thought; and yet why not the empire of Mutability, even over those dread Infinities, as well as among the mere shows and transiencies of Earth? Those galaxies are not the work of Man; they are part of the ordinances of ONE, below whose awful Unchangeableness, even processes whose solemn steps seem to occupy eternities, may yet be, as before human vision, the opening of the leaf of the evanescent flower!"—*System of the World*, p. 27.

But, in the more complex clusters, there does not appear to exist any trace

* "In the most *crowded* parts of the Milky Way," says the elder Herschel, "I have had fields of view that contained no fewer than five hundred and eighty-eight stars, and these were continued for some minutes; so that in one quarter of an hour's time there passed not less than one hundred and sixteen thousand stars through the field of view of my telescope. In some parts the stars cluster so thickly that an average breadth of five degrees gave three hundred and thirty-one thousand stars. Were we to suppose every part of the zone equally rich with the space above referred to, it will contain no less than twenty million one hundred and ninety-one thousand stars."

of law or order whatsoever. In the dumb-bell nebula, for example, there appear to be two centers of attraction round which the orbs seem to have been clustering. The spiral nebula, however strong the sympathies pervading all that strange system, is still apparent to us only as a collection of separate masses. Again, in the milky way, we have a similar appearance; it is by no means regular, but, on the contrary, appears to be a succession of clusters, probably self harmonious, separated from each other by lines or patches more or less obscure; other spiral nebulae present a similar appearance, all which may tend to show that a separation of masses, and the formation of other and more compact clusters, may not be strange in the system of the universe. And here again we must be allowed to quote the words of Dr. Nichol:

"Have we then, here, an intimation, however dim, of what is passing among those dread recesses? Is the apparent separation of our milky way into parts, in truth, as Herschel supposed it, in one of his loftiest moods, a mark of how far the shadow has passed along the dial of Time—a mystic but significant index of how much of the existence of that zone has gone, and a sure prognostic of its future course? If it is indeed so, then we have before us another infinitude besides that of Space. The marvels in our view must also fill up unfathomable durations, and have received from their history much of what is mysterious and strange in the present aspect and conditions of their being."—*System of the World*, p. 81.

We have already spoken of the revolution of the double, triple, and multiple star-systems round each other, or rather round some central spot of attraction. Reflecting on these phenomena, we are naturally led to raise our thoughts to the whole stellar universe, and to inquire whether the clusters may not be united into separate schemes, internally consistent, and upheld by their inherent activities; whether the individual stars of which they are composed may not roll in mighty orbits; and whether, just as the planets roll round it, the sun itself, with all its dependent orbs, may not be circling round some central point of attraction. This thought naturally suggests itself by the phenomena of the double stars, and, as far as the latter part of the inquiry is concerned, has been satisfactorily answered. Herschel entered deeply into this problem, and in 1805 he announced, that

VOL. LVL—NO. 2

"the sun, with his planets, is rapidly darting toward a point in the direction of the constellation Hercules." This opinion, subsequent more full and accurate inquiry has completely confirmed. In recent times, Argelander, of Bonn, has investigated and discussed the subject, with an accuracy that leaves nothing to be desired; and the truth that our sun, with all its planets, is itself rolling on a grand orbit, is firmly established. Thus we find that our bed of stars no longer shines before the apprehension as a fixed and complete stratum, but rather as one mass of unresting activities, working out, as time rolls on, its stupendous destinies. This truth having been established, another question naturally arises: around what body does the sun describe its orbit? Argelander imagined that it rolled around some central body, probably opaque, situate near the bright spot in Perseus. Many other spots have been suggested; but, during the year 1846, Dr. Maedler, director of the Dorpat observatory, announced his discovery of the great central star or sun, about which the universe of stars, our own sun and system among the rest, is revolving. This announcement is contained in numbers five hundred and fifty-six and five hundred and sixty-seven of the *Astronomische Nachrichten*, a journal published at Altona, and conducted by Professor Schumacher. This discovery, the result of many years of incessant toil and research, has been deduced by a train of reasoning and an examination of facts scarcely to be surpassed in the annals of science; and, as it has attracted but little attention in this country, we make no apology for briefly adverting to it. Guided by the researches of the elder Herschel, as to the figure of the stratum of stars to which our sun belongs, Dr. Maedler locates his grand center near the Milky Way. But, as the Milky Way divides the sphere of the heavens into two unequal parts, he argues that the center must be searched for in the smaller of the two parts. Again, it has been shown that our sun is nearer the southern than the northern side of the Milky Way, and hence we must expect to find the great center, not only in the smaller portion of the heavens, but also in the northern part of this smaller portion. Another approximation to its position is obtained by the author, from an examination of the

sun's motion through space; and he reasons that the point in the heavens, toward which the entire solar system is urging its way, is the pole of a great circle, within which the center, about which the sun is revolving, must be placed. This subject, as we have already observed, has been ably discussed by Argelander and by Otho Struve, and the point in question has been ascertained to a very close approximation. If from this point—determined by Argelander and Herschel, as in the constellation Hercules—as a pole, we describe a great circle, it intersects the Milky Way in the constellation Perseus. By using that point, determined by Otho Struve, we find this circle cutting the Milky Way near the constellation Taurus. Having made this rough approximation to the grand center, Dr. Maedler prosecutes his researches by means of the proper motion of the fixed stars, and, after many trials of fixed stars, at length finds a point which satisfies all the conditions yet presented by observations. The following is his own announcement of the discovery. "I therefore pronounce the Pleiades to be the central group of that mass of fixed stars limited by the stratum composing the Milky Way, and Alcyone as the individual star of this group, which among all others, combines the greatest probability of being the true central sun." By a train of reasoning which we need not here attempt to explain, he finds the probable parallax of this great central star to be six thousandths of one second of an arc, and its distance to be thirty-four millions of times the distance of the sun, or so remote, that light requires a period of five hundred and thirty-seven years to pass from the great center to our sun. As a first rough approximation, he deduces the period of revolution of our sun, with all its train of planets, satellites and comets, about the grand center, to be 18,200,000 years. The author of this theory lays it before the world, and declares that he will yield it on condition that one single star can be found by any astronomer, within twenty or twenty-five degrees of his grand center, in which a well-determined motion toward the north exists. His theory indicates that the proper motion of all stars thus situated, must be toward the south. Such is a brief outline of the facts announced by Dr. Maedler, which we give without comment, since its publication, is of too

recent a nature to have allowed time for any arguments or observations, either in its favor or otherwise.

And this leads us to another most important and comparatively recent discovery in astronomical science, the *parallax of the fixed stars*. Parallax is the apparent change of position in an immovable body, resulting from real change of position in a moving one, from which the former is viewed: thus, the apparent motion of houses or trees when seen from a carriage-window, is a familiar instance of parallax. It is by parallax that the distances of the heavenly bodies from us is ascertained. When it is said that the distances of the celestial orbs can be measured with the same degrees of relative accuracy with which we ascertain the distances of bodies on the surface of the earth, those who are unaccustomed to investigations of the kind generally listen to the statement with doubt and incredulity, for the reason that the distances measured are so enormously great. But the magnitude of a distance or space does not of itself constitute any difficulty in its admeasurement; on the contrary, we are often able to measure large distances with greater accuracy than smaller ones. Another objection generally urged is, that the body whose distance the astronomer measures is inaccessible to him. But even this does not constitute any real difficulty, as may be easily illustrated. The military engineer, who directs a shell against the buildings within a besieged town, can so level it as to cause it to drop on any particular building which may have been selected; to do which, however, he must, of necessity, know the exact distance of that building; and yet, though this is inaccessible to him, he finds no difficulty in measuring its precise distance. To accomplish this, he lays down a space upon the ground he occupies, called the *base line*, from the two extremities of which he takes the bearings or directions of the building in question. From these bearings, and from the length of the base line, he is enabled to calculate, by the most simple principles of geometry and arithmetic, the distance of the building against which he is about to act. Now, in the case of any celestial body—the sun, for example—its distance is measured by precisely the same means: the earth's diameter is taken for the base line, and the bearings of the sun may be easily ta-

ken from the two opposite extremities of the earth's diameter, by two observers, or, what is the same thing, by one observer, regarding it at the distance of twelve hours; for, from the revolution of the globe round its axis, he will, in twelve hours, be at points distant from each other, by a little more than the earth's diameter—the angle deduced from this admeasurement is called *diurnal parallax*. Now, the fixed stars are so distant that they exhibit no appearance of diurnal parallax; but, fortunately, we have much wider ground whence to measure this parallax; as they are outside our solar system, we are enabled to observe them, not only from the extremities of the earth's diameter, but from the extremities of the earth's orbit. Having then, by the diurnal parallax of the sun, ascertained the length of the diameter of this orbit, which is 190,000,000 of miles, we get, by observing, at periods six months apart, 190,000,000 as our base line; and we thus obtain what is called *annual parallax*. Notwithstanding, however, this immense vantage ground, so enormous is the distance of the fixed stars from us, that observers have, until until the last few years, failed in detecting any measurable parallax. Recently, however, parallaxes of fixed stars have been simultaneously detected by three eminent astronomers—Bessel of Königsberg, Struve of St. Petersburg, and Henderson of Edinburgh. The star on which Bessel worked, was sixty-one *Cygni*; it gives a parallax from which its distance from us is calculated at 670,000 times that of the sun, or 63,650,000,000,000. Of such a distance we can form no conception; the mind must fail to grasp the immensity of the space thus estimated; and, however it may delight to indulge in curious speculations concerning it, or endeavor to assist itself by comparative admeasurements, it can not pursue them far without being led beyond its limited powers, and falls "intoxicated with eternity."

We turn now to the last part of our subject, namely, the nebular hypothesis of Herschel, Laplace's celebrated theory of the birth of the solar system, and their complete annihilation by the discoveries of Lord Rosse's gigantic telescope. We have already referred to the nebulae scattered, like islands, through space, and shown that many of them were,

when examined by the telescope, resolvable into clusters or firmaments of stars, similar to that galaxy to which our own system appertains. But besides these resolvable nebulae, many specks of pale, cloudy light are scattered in great numbers over the heavens, which, until very lately, were utterly irresolvable by the most powerful telescope. In fact, as the power of the instruments by which they were viewed was increased, they were rendered more diffuse and strange in their appearance, just as a mass of summer cloud would have its form and outline dissipated rather than defined by the telescope; they, in fact, appeared to consist merely of self-luminous vapor. But, we think, we may better explain ourselves if we give one or two illustrations of the varying form and appearances of these nebulae, since it was from such variety of form and appearance that Sir John Herschel built up his hypothesis. If the eye be directed to the star Theta, in the sword of Orion, it appears as if shining through a small patch of filmy cloud, just dense enough to render it indefinite without obscuring its light. This cloud is, however, itself luminous, and was believed to be a mass of nebulous matter, either surrounding the star or spreading itself out beyond it in space, probably as far as the eighth order of stellar distances. To this nebula the greatest interest has been attached, as will be seen from the following extract from the work of Dr. Nichol:

"On examining the middle star in the sword, it seems affected by an *indistinctness* not common to small stars; and the application of the smallest telescope at once yields the explanation—the object appearing not as a star, but as a diffused haze. Examined with instruments of a profounder space-penetrating power, its character as a haze continues unchanged, though it speedily gives warning of some strange and fantastic object. To the ten-foot telescope, for instance, which would descry a star nearly three hundred and fifty times farther away than the average distance of orbs of the first magnitude, the mist seems singularly shapeless, but not a vestige of a star is discernible; and yet, be it observed, the light from that object affects the naked eye, although it is thus proved, if it be a cluster, to lie so remotely in space that the ray leaving it must travel through those immensities more than three thousand years ere it could reach our world. Apply, now, Sir John Herschel's eighteen-inch mirror. Not yet the remotest aspect of a stellar constitution, but an object of which the revelation of the ten-

foot telescope is evidently the mere rudiment, Strange, indeed, those fantastic branching arms, but not less strange the apparent internal constitution of that extraordinary mass. So unaccountable seems it, and so unlike what has hitherto been known of collections of stars, that that most eminent astronomer averred that, so far from showing a trace of stellar constitution, or even suggesting that, it rather suggested something quite different. During Sir John Herschel's residence at the Cape of Good Hope, he examined this remarkable phenomenon in circumstances much more favorable than can ever prevail here, namely, when it was near the zenith, and, of course, seen through the purest portion of the atmosphere: but, still, there was not a trace of a star. During the winter of 1844-45, the Earl of Rosse examined it with his three-foot mirror, with the utmost care, and executed a drawing of it, which contained not a vestige of a star. There then the nebula lay, separated from us—if it be a cluster—by an immensity through which light could travel in no less than thirty thousand years, and yet visible to the naked eye! Surely the imagination might well shrink from the admission of facts like these—from the belief in a system of stars so majestic, of splendor so concentrated, as, on the supposition that it is stellar, we must attribute to that mass."—*System of the World*, pp. 50-53.

But there are numberless similar nebulae which, up to a very recent period, have been irresolvable. Near to the star Nu, in Andromeda, a nebula may be discerned by the unaided eye; to a two-foot reflector, this presents the appearance of an elongated ellipse of light, extending about as far as the breadth of the moon, concentrated into a distinct nucleus in the central part, but fading away insensibly toward the borders. This may be taken as a type of a numerous class of telescopic objects that refused to resolve them into stars, but yet always presented nuclei of light somewhere upon their surfaces; in many, the condensation is gradual, as in this instance, the nucleus and its filmy envelope passing by insensible gradations into each other; in others, the condensation is more sudden and abrupt, so that the central nucleus appears to be perceptibly defined; and in others, the nucleus is so concentrated that it appears to be a small brilliant star, only distinguished from other stars by the presence of a luminous envelope around it. These latter appearances were termed, by Herschel, stars with burrs.

Now it was these phenomena, constantly observed by the elder Herschel, that gave rise to the nebular hypothesis. He

imagined that the selfluminous, vapor-like modification of matter, spread out as nebulae in space, is in a state of constant and progressive condensation; the filmy objects, that are without any perceptible nuclei, he considers to represent its rudest and most diffuse condition; the next stage he conceived to be seen in the nucleated nebulae; the nebulous stars he believed to be in a still more advanced state; and the defined stars to represent the perfect condition of the whole. He conceived that the stars all pass through these various stages of progressive development before they assume their mature form, and that the various objects we have described were star-masses, seen in their more rudimentary or in their more perfect stages. Thus, for example, he considered the nebula in the sword of Orion to be a mere rude congregation of luminous vapor; the nebula in Andromeda to be advancing in structure, as shown by the gathering up of the filmy matter into a central nucleus; and in the nebulous stars, or stars with burrs, he saw the thin envelope of light just upon the point of finally incorporating itself with the nucleus of central consolidation. By the theory of nebular condensation, it is thus assumed that stellar orbs are formed from diffuse nebulous material, and that we are able to see them by our telescopes, in their various stages of growth; the ruder nebulae being now in the precise condition through which the more advanced structures have passed, and the defined stars having completed their organization, by concentrating, in solid nuclei, the last visible portion of their luminous atmospheres. And it points to the nebulous condition of our sun, as evinced by the zodiacal light, or that luminous cone, which, under favorable circumstances, may be seen to rise toward the zenith, after the sun has sunk beneath the western horizon.

Such was the hypothesis of Herschel, which was adopted by the great astronomer Laplace, and by him made use of to account for the original creation of our solar system: not that that the origin of Laplace's speculation lay in Herschel's supposed discoveries, for, previously to these being made public, he had contemplated our system as a whole, and had discerned harmonies within it, and numerous adjustments unaccounted for by the presence of the law now upholding its

mechanism. Considering more particularly the uniform direction of the rotations and revolutions of the sun, planets, and satellites, the specific densities and velocities of the latter, and their relative distances from the sun and from each other, he saw that the main conditions of the problem would be satisfied, by supposing the planets to have somehow come into existence at the extremities of the solar atmosphere, while that orb, in the course of ages, was gradually contracting itself, or passing from a gaseous mass into his present organized form. When the nebular hypothesis of Herschel became known to him, Laplace saw therein all the foundation his own theory required. This theory was as follows: He conceived that the solid constituent material of the system was at one time diffused, as a thin nebulosity, beyond the orbit of the furthest planet, which by the loss of heat, through radiation into space, contracted its dimensions, and began to rotate, as its particles rushed unequally toward the center. As the contraction continued, atoms, impressed with a certain momentum, and drawn nearer to the center, having to move in smaller circles, hastened on the rotating velocity of the whole; until at last this became so excessive, that an outer ring of matter in the line of the greatest motion was separated as a distinct zone, as water is thrown off from the edge of a rapidly whirling grindstone. The separated ring subsequently breaking up, formed, by the clustering of its atoms round a common center, the nucleus of a planet, which, continuing to rotate on its own account, threw off subsidiary rings to constitute satellites. The successive separation of rings, at distances nearer and nearer to the center, formed newer and denser aggregations, moving in quicker periods, and rotating with a speed proportioned to the breadth of the thrown-off ring. The annular appendage of Saturn he considered to be merely one of the subsidiary masses, consolidated as it was thrown off.

Now, it is evident, that both these hypotheses depended entirely upon the

irresolvability of the nebulae of which we have previously spoken, and it is not, therefore, matter of wonder, that the scientific world should have watched with intense anxiety the examination of Orion (that nebula which had obstinately defied all attempts to analyze or resolve it) by the gigantic telescope of Lord Rosse. Dr. Nichol relates, that at Christmas, 1845, he visited Lord Rosse, at Parsonstown, and saw this nebula through that mighty tube. "It was," he says, "owing to the incompleteness of the instrument and unfavorable weather, the first time that the grand telescope had been directed toward that mysterious object. Not yet the veriest trace of a star. Looming, unintelligible as ever, there the nebula lay." But this state of uncertainty did not last long. The noble owner of the Parsonstown leviathan had resolved to avail himself of all favorable opportunities during the winter to penetrate, if possible, the constitution of this wonderful object and, in March of that year, he communicated to Professor Nichol the fact that he had resolved the nebula into a galaxy of stars. It is no longer, then, a mass of self-luminous vapor, but a bright firmament of stellar orbs, so far removed from us in space, that the brilliancy of its constituent stars are merged into an uniform, faint light, and thus doubt and speculation on this great subject have vanished forever. Herschel's beautiful hypothesis has no longer any support; and it is evident that the various appearances of the nebula, as observed by him and detailed above, are but the effect of varying distances. Thus, a nebula removed, as is that in Orion, to a certain distance, would assume the appearance of a cloudy, luminous speck; at a less distance we should see a greater degree of brightness in the center where the stars were closer, and thus we should have a nucleated nebula; and so on through those various appearances which were formerly held to indicate various stages of stellar development. Deprived, too, of the nebulae, the cosmogony of Laplace has no longer visible foundation in fact.

From Bentley's Miscellany.

EDWARD FORBES, THE NATURALIST.*

THE remarkable and gifted subject of this memoir was born in the Isle of Man in 1815, and within the shores of that tiny kingdom he spent a third of his life, but the fame he won in after-years had nothing remote or insular in its character and limits. His great-grandfather was one of the many adherents of the Stuarts upon whose head a price was set for his loyalty, and he migrated from his native Highlands to the Isle of Man soon after the events of 1745. The father of Edward Forbes was connected with the trade of the Island, and became a banker: his mother was of an old Manx family, and is described as a person of intellectual and superior mind, who took great delight in cultivating beautiful flowers and rare plants—a source, probably, of her son's early fondness for botanical pursuits.

The green romantic beauty of the valleys of Man, and the picturesque wildness of its shores and bays, told powerfully on his youthful fancy, and with the zest of a descendant of Norse sea-kings he loved the waters that encircled his island home. He was, indeed, a votary to whom the Muse might say:

"I saw thee seek the sounding shore,
Delighted with the dashing roar;
Or when the North its fleecy store
Drove through the sky,
I saw grim Nature's visage hoar
Struck thy young eye.
Or when the deep-green mantled earth
Warm cherished every floweret's birth,
And joy and music sounded forth
In every grove,
I saw thee eye the general mirth
With boundless love."

The natural charms—the mountains, glens, sea-cliffs, and bay-indented shores of his little fatherland, were of more interest to him than its architectural remains, yet in their influence on the mind

these were, in truth, unconsciously identified with the natural features, as if the fortress and the rocks together formed one natural whole. From Dr. Wilson's review of his childhood, it would seem that before he was twelve years of age he had without aid discovered the true scope of his intellect, and began to employ it on the subjects which became the pursuit of his life. When a still younger child, his playmates brought him their contributions of minerals, fossils, shells, dried seaweed, hedge-flowers, and butterflies, to cheer his hours of sickness; he filled his pockets with weeds and creeping things, and appropriated another pocket to a tame lizard, and he was still a boy when he formed a museum of his own at home. Even in these early years his countenance was considered very interesting; it expressed amiability and intelligence, and a stranger, it is said, could hardly pass without turning round to look at him again. And thus in busy idleness his childhood passed:

"What liberty so glad and gay,
As, where the mountain boy,
Reckless of regions far away,
A prisoner lives in joy."

But it was necessary that a worldly vocation should be selected for him. His mother's highest ambition was to see him a good clergyman: he, however, felt no vocation for such a life, and would not take holy orders merely as a means of livelihood and leisure. He was fond of the arts and of poetry as well as of natural history, and it was no easy matter to say what profession he should follow. His choice being limited to the dissimilar professions of physician or painter, and his aversion to the special studies of medicine being unconquerable, he consented to make Art his profession. And so the scene now changes to the metropolis. But here his aspirations were very soon discouraged, and in the autumn of 1831, after wasting a few months in the fruit-

* *Memoirs of Edward Forbes, F.R.S., late Regius Professor of Natural History in the University of Edinburgh.* By GEORGE WILSON, M.D., and A. GEMIE. Macmillan & Co. 1861.

less study of Art, he quitted it to become a medical student in the University of Edinburgh. It was his destiny to return eleven years afterward to London, to occupy one of its places of honor, and enter upon a career of distinction.

The lamented Professor Wilson, his friend and biographer, (whose labor of love has been ably continued and completed by Mr. Geikie,) casts a retrospective glance at the number and magnitude of the changes they had witnessed since the time when Edward Forbes commenced his student-life at Edinburgh. It took him three days to reach the Isle of Man from London, and three more to reach Edinburgh from the island. There was but one public railway in England. No steamship had crossed the Atlantic, and iron ships were novelties rarely seen. The penny-postage was not yet planned: the electric telegraph was no more than a possibility. The amazing future of photography was hidden: the physical sciences were taking immense strides, and revolutions were on the eve of occurrence. Logic and metaphysics, as taught by Sir William Hamilton, were about to throw over Edinburgh the lustre of a school of philosophy; but anatomy, the chief science on which medicine rests, was studied under disadvantages unknown to students of the present day. Chemistry was on the threshold of a great change, and at that time hardly afforded a foundation to botany as a science, or to agriculture as an art. The Botanical Garden was, however, one of the finest gardens of its kind in the country; and at Edinburgh the students possessed the advantage of being amidst a picturesque natural garden, affording a flora of great variety. One week, says Dr. Wilson, a party clambered up the Bass Rock to gather its scanty but curious plants among the perplexed Solan geese, its feathered inhabitants; another, they scoured the kingdom of Fife. Professor Jameson at that time represented Natural History in the University, and under Dr. Hope and Dr. Reid, Forbes was a zealous student. During his novitiate, the microscope underwent such great improvements as soon led to the instruction of pupils in its use, so that while new regions of country were made accessible to botanical excursionists, new wonders of the Divine Hand were revealed in every organic structure, and the philosopher

saw spread around him "the evidence that there is no one portion of the universe of God too minute for his notice, nor too humble for the visitations of his care."

After Edward Forbes had gone through a practical course of chemistry, he hesitated whether that science or natural history should be his permanent pursuit; he actually "tossed up" with a fellow-student for the apparatus which they had bought with their common funds, and, losing the chemicals, was confirmed in his intention to devote himself to natural history. Accordingly, we find that Forbes, when only eighteen years of age, had acquired "a clear systematic knowledge" of that branch of science; and "his power of perceiving the relation between apparently isolated facts in remote departments of nature was" (to quote the testimony of Dr. Campbell, Principal of the University of Aberdeen) "astounding in one so young." He studied literature and science side by side, and the passages he extracted into his Common-place Book, with such great though desultory diligence, are from works which few naturalists, and still fewer students of medicine, would be found to read. It is probably quite true, that, as regards natural history studies, he brought to the university more knowledge than the majority of its graduates after four years' study carry away with them. Of the influence of the scenery amidst which the Edinburgh student pursued his studies, Forbes thus spoke many years afterward, when he had himself attained its chair of Natural History:

"The tastes of most men," he said, "can be traced back to the habits of their youth, and these habits are in a great measure molded by the circumstances, physical as well as intellectual, amidst which that youth has been passed. Grand scenery suggests grand thoughts, and every ennobling thought elevates not merely for the moment, but permanently, the mind in which it dwells. It is a great gain to a university to be placed as this is amid scenes of unrivaled beauty; and the youth whose hours of relaxation are spent in their presence, carries with him into after-life the memory of their beauty and grandeur."

His early career at the University was one of the happiest portions of his life. He might truly say:

"For me
Life's morning radiance hath not left the hills;
Her dew is on the flowers."

The world's cold touch had not chilled him: his eager eyes looked forth on a bright and boundless future. Young men of genius with tastes like his own, whether students in medicine or in other faculties, had become his attached friends, and his sunny spirit and social qualities made him welcome to seniors as well as to associates. Libraries and museums were open to him; his city walks were through streets which pleased his artist-eye; his excursions carried him into a country which was to him "an Eden filled with creatures yet to be named," and his lodging (at the top of the stairs in No. 21 Lothian street) he called his "happy den."

When he returned in vacation to his native island, a comparison of its fauna and flora with those of Great Britain and France on the one hand, and of Ireland on the other, illustrated and confirmed, (says his biographer,) if it did not suggest, the doctrine of specific centers of distribution of plants and animals; and in like manner during his early dredgings on his native shores, the doctrine of zones of submarine life differing in character according to the depth of the sea, dawned upon him. On returning to Edinburgh for his second session, the rival claims of natural history and of medicine again struggled for supremacy; but he did not aspire to a medical degree, and, in a subsequent session, medicine was finally abandoned. Obligated to adopt a profession as a livelihood, but disowned by Art and by Medicine, his career at this point was not encouraging to his friends; but it was as a naturalist that his laurels were to be won, and the spring of 1836 saw him devote himself formally to the study of Nature. He was (as Dr. Brown of Edinburgh has remarked) in the best sense a natural historian—an observer and recorder of what is seen and of what goes on over the great field of the world, and not less of what has been seen and has gone on in this wonderful historic earth. He was keen, exact, capacious, and tranquil and steady in his gaze as Nature herself, and was, thus far, akin to Humboldt, Cuvier, Linnæus, Pliny, and Aristotle.

"Learned he was; nor bird nor insect flew,
But he its leafy home and history knew;

Nor wild-flower decked the rock nor moss the
well,
But he its name and qualities could tell."

Meantime, his autumnal vacation rambles were sources of great delight, for he roamed with keen eye, ready pencil, and light heart, "to gather the wonders and win the secrets of Nature." The first foreign tour he made was a pilgrimage through part of Norway. A very interesting and graphic account is given in the volume before us of his voyage from the Isle of Man. In Norway every thing wore a novel aspect; the thousand isles and interlacing fiords, the endless undulations of the pine woods and the bare rocky shores, the picturesque wooden houses nestling in their green hollows or backed by far-stretching forests, were objects that he viewed with new delight. Forbes and his fellow-traveler arrived at Bergen on the festival of St. John, when the peasantry were parading the streets in every variety of costume, yet Forbes's tartan trowsers soon attracted a mob. Then they plunged into the unfrequented solitudes of rock and snow-field and mountain; they visited the glacier of Folgefond, and from Bondhuus sailed up the Hardanger fiord between huge cliffs rising perpendicularly from the quiet waters to the regions of perpetual snow, and while in Norway boated and botanized to their heart's content. Copenhagen, with its wide squares and numerous public buildings, palaces and churches, picture-galleries, museums, parks, rampart-promenades, and other objects of interest, delighted his artistic eye.

On his return he encountered a dreadful storm, and when he again saw the shores of England, "shipwrecks strewed them like seaweeds." In the summer of 1834 he visited North-Wales, and here he did little else than botanize, and with wonderful keenness of vision and power of climbing collect the rarer plants. The summer of the following year he spent in France, Switzerland, and Germany, and to the museum of the Jardin des Plantes, at Paris, devoted continuous study. Having here completed the winter course, he visited the south of France. He was charmed by the wildness of Vaucluse, by its bare bold rocks, its fountain—a miniature lake clear as crystal and tinted like the sapphire, mysteriously gushing from the rock, and by the

inspiration which seemed to him to linger on the spot. Afterward visiting Port Mahon, in Minorca, on his way to the shores of Africa, he was charmed by the novel and almost Eastern aspect of the architecture, the picturesque dress of the natives, and the variety of nations whose vessels were in the port; and here, for the first time, he saw the cactus and the palm growing as natives of the country. But in these wanderings, as well as during his stay on the African shores, the youthful naturalist seems to have been ever intent on achieving the scientific results of travel.

Returning to Edinburgh, he gave, in the winter of 1838, a course of lectures "On the Natural History of the Animals in the British Seas." In the September of the following year he began, and in 1841 completed, his well-known *History of British Star-Fishes*. He had now become a naturalist by profession, and he sought to make philosophy (to use his own expression) contribute toward its expenses, by giving lectures on zoölogy. In 1840 the British Association met at Glasgow, and his scientific standing was greatly heightened by his papers, by the wide range of acquirements he evinced, and by the manner in which he discharged the duties of secretary. Yet, with the earnest desire to labor vigorously, every avenue toward remunerative employment seemed to fail him. For five years he had drifted from the anchorage of a professional calling, and a settled home and permanent vocation still seemed as distant as ever.

A circumstance now occurred which gave him the means of greatly extending his researches and his reputation. Captain Graves, the officer in command of the Mediterranean Survey, proposed that he should join H.M.S. *Beacon* as naturalist to the Survey, and he left London for the Levant early in April, 1841. It had been intended to devote the summer to the coast of Candia; but beneath the white distant peaks, that seemed as the ship approached to be resting so peacefully on the deep blue sea, a native revolt against the Turks was raging, and the survey of Candia was of necessity postponed. While the *Beacon* remained off Paros he explored the neighboring isles, pitched his tent upon the hill-sides, and partook of the rude fare, the native dances, and the picturesque life of the

people. In visiting the seas and shores that had yielded their denizens to the Father of Natural History, he stood, as it were, in the shadow of the great name of Aristotle, and he viewed those isles and seas with reverence and delight. He afterward joined that distinguished officer, Captain (then Lieutenant) Spratt, in a cruise for the prosecution of the coast survey. He found a striking similarity in the flora of all the islands, and up to three thousand five hundred feet (the highest peak he ascended) the plants of the Cyclades yielded no specimen of a sub-alpine character. The scenery presented a mingled wildness and beauty such as he had never before seen: huge precipices rising from the sea to towering peaks; and deep ravines, whose steep bare walls rose from tangled thickets of vines, and figs, and olives, and brought masses of gray and purple-tinted rock in contrast with the rich colors of the trees. He visited the great region of recent submarine volcanoes in the bay of Santorin—itself the site of an ancient crater—and found a former sea-bed at a height of two hundred feet above its former level. Among the portly, hospitable monks he visited in their rocky cells perched on the edge of cliffs, he found one recluse who had solaced himself by filling a portfolio with his own drawings, and he saw that remarkable monk, Cairi, who had visited England for the purpose of seeing Oxford. The fauna of these seas he found to be of a defined character, and different from that of any other of the marine zones, and over the two hundred miles examined, an exact correspondence in productions was observed.

Forbes then visited the shores of Asia Minor, and the botanical, zoölogical, and geological results were combined with those of a later journey, and published in 1847 in the *Travels in Lycia*, the joint production of himself and his distinguished colleague. Blending natural history pursuits with the explorations of cities that had been lost for centuries; sketching tombs, temples, and theaters; mingling amongst the peasantry; sometimes benighted amid briers, ruins, and jackals in the wild uplands of Lycia, and well-nigh wrecked among the rocks and skerries that fringe the shores, while he was exhausting the zoölogical treasures of that classic sea, the three months he spent in Asia Minor formed no

uneventful period in his life. His *Report to the British Association on the Mollusca and Radiata of the Ægean*, raised him to a high rank among living naturalists. He recognized in it eight provinces of depth, the lowest (about seven hundred and fifty feet) being a new marine country added by himself to the domain of the naturalist. He discovered that the species which have the greatest vertical range, are likewise those which extend over the widest areas of seas. That parallels in latitude are equivalent to regions in depth is another interesting and suggestive law of marine distribution deduced from these Mediterranean researches.

With his sojourn in Greek waters his life of light-hearted freedom may be said to have ended. In his absence, his family affairs had sadly changed: his father, hitherto prosperous as a trader and banker, had lost every thing, and the young naturalist became charged with new responsibilities and duties—with solicitude for the kindred who had claims on his love and labor, as well as for his own advancement. And so, reluctantly abandoning his long-cherished wish to dredge the Red Sea, he returned to England in October, 1842, to enter on his career in London as Professor of Botany in King's College, and Curator of the Geological Society. Amid the patient gathering of facts relative to the distribution of plants and animals, he found in geology the bond that was to link those facts together in a symmetrical whole, and in carrying out this line of research, he probably (as his biographer remarks) did greater service to geology than to any other branch of the natural sciences. It is his great praise that he not only did more than perhaps any man of his day to encourage a love for natural history, but more than any of his contemporaries to show how geology and natural history must be linked together.

The tone of his introductory lecture as Botany professor was such, that he seemed to have come fresh from Nature to demand for the study of her phenomena a high and honorable place among the recognized courses of mental training. His class augmented; and such was the charm he could throw round the study of vegetable structure, that his lecture-room became a source of attraction to amateurs. The rapid facility with which he sketched his illustrations while lecturing, was al-

ways a pleasing as well as striking and characteristic feature of his lectures; and whether his pencil was employed on the grotesque and humorous figures to which he loved to devote margins of letters and moments of relaxation, or on the more exact representation of scientific objects in diagrams, his graphic powers were equally ready and felicitous. The labors of his botanical session at the college, added as they were to the duties of his curatorship, which absorbed his daytime, and to the scientific work to which his evenings were devoted, would have broken down the energies of a less ardent and indefatigable laborer. Yet in 1843, when the British Association met at Cork, he acted as amateur whipper-in of geologists, naturalists, chemists, and philosophers, and amidst all this labor found time for reports and occasional papers. One of these—a paper read in the spring of 1844 before the Geological Society, *On the Light thrown on Geology by Submarine Researches*—contributed to his obtaining the hold which he never afterward lost on the respect and sympathy of the higher class of scientific society in London, and to a government grant of five hundred pounds toward the publication of the *Ægean researches*. His want of leisure to arrange for publication the mass of materials which resulted from his visit to the East, seems, for years afterward, to have fretted him greatly, and, unfortunately for science, the needed leisure never came. Other duties continually pressed upon him; and when at last he gained the Natural History chair of Edinburgh, and began to put the vast mass of scientific material in order, he was cut off in the noontide of his course.

Some changes of scene and occupation in the summer of 1844, gave him new energy, which he signalized on the meeting of the British Association at York in the autumn, and by entering on the duties of his new post of Paleontologist to the Geological Survey, then conducted by its founder, Sir Henry de la Beche. This appointment brought relief to body and mind; and at the Beef-Steak Dinner Club, which he established under the cognomen of the Metropolitan Red Lions, he rallied round him the younger scientific men of London, and showed how thoroughly social a man of science could be, and how well mirth and earnestness could be combined. His lectures at the Royal Institu-

tion in the spring of 1845, were on *The Natural History and Geological Distribution of Fossil Marine Animals*; and at the Cambridge meeting the British Association he contributed a paper on *The Geographical Distribution of Local Plants*, in which he elucidated the doctrine that the present flora of Great Britain originated in at least four distinct geological epochs. That memoir has been pronounced one of the most masterly, as well as beautiful, generalizations to be found in British scientific literature. Forbes believed that the plants and animals of Britain could, for the most part, have come only by migration, before the isolation of the British islands from the continent, during a period anterior to that of man, and when palm-trees flourished in the latitude of the south-eastern parts of England.

In the autumn he revisited the northern extremity of this realm, examined the Shetland Islands, and then, cruising among the Hebrides, dredged the deep kyles and lochs of the wild western shores.

The beginning of the year 1847 found him anxiously weighing his chances of promotion to the Natural History chair of Edinburgh, so long the object of his desire, and which Professor Jameson was then expected to resign. The state of scientific appointments in London was such that the utmost gain he could look for was a salary of five hundred pounds, and for this his liberty, his time, and comfort must be surrendered to official trammels, and all prospect of prosecuting his own scientific work resigned. But the veteran naturalist at Edinburgh rallied from his illness to retain his professorship for another seven years.

In March, Forbes, as Paleontologist of the Survey, began his tour of inspection in Ireland. In the summer, at the close of his college lecture session, he began to prepare for the early publication of his great work, *The History of British Mollusca*, which for four years occupied a large portion of his time; and the autumn was devoted to geologizing, chiefly among the Silurian and Welsh rocks. It was on these excursions that his companions of the survey found his "inner life" best revealed, for genial mirth succeeded to grave debate and earnest labor. During his leisure hours in London on his return, he prepared the new Palæontological map of the British islands, which was published in

Johnston's Physical Atlas in the following year. Long and elaborate contributions to the paleontology of the older geological formations occupied him during the winter; and in the spring of 1848 he made a geological tour with the surveyors in Hampshire and Dorsetshire, and returned to open his botanical lectures at King's College and to fall in love.

That a man so susceptible of the gentler emotions, and of so much sensibility to feminine charms, and who was so great a favorite in society, should be still in his bachelorhood when he reached his thirty-third year, is certainly a testimony to his prudence and judgment. There seem to have been two very serious obstacles to his following his envied comrades into the married ranks, for, first, he declared he had never met a woman he could esteem so thoroughly as to marry her; and, secondly, he had never enjoyed income enough to marry. It needs not to be told how impressionable by the gentler sex he ever was. Nymphs glanced out in the pages of his early note-books among grim skeletons of animals and scraps of hardly drier lectures; females faces, pensive, with braided locks or laughing among curls, float through the memoranda of his London life and country rambles. His wishes were at length destined to an early fulfillment. When visiting at a friend's house in Surrey, he met Miss Ashworth, daughter of the late General Sir C. Ashworth, and the charms of "good sense, unselfishness, amiability, and accomplishments" (to use his own words,) made him a lover. Circumstances favored their speedy marriage, and on the thirty-first of August, 1848, he was united to the object of his choice, the philosophic bridegroom, amorous as he was, having nevertheless contrived to write two papers for the meeting of the British Association held at Swansea earlier in that month.

But the fetters of the geological survey were not thrown off on his submitting to those of matrimony, and within a week after the wedding he proceeded with his young wife to Llangollen, where he took lodgings in a homely farm-house, afterward known among the geologists as "Honeymoon Cottage." His married life was not less nomadic than his stage of bachelorhood. He had joined the survey to gain the means of living, and of giving himself eventually to the natural history work to which his life had been devoted,

but it was his fate to exemplify what has been called the vanity of human wishes, for his acceptance of office only subjected him to years of labor, for very inadequate remuneration, in a capacity which brought no honor, while the field in which he hoped to win his laurels remained inaccessible.

The erection of the new museum in Jermyn street, and the proposal to establish it as a training-school for geological science, seemed, however, to promise better things. Meantime, the arrangement of the fossils in the galleries of the new building continued to form a chief part of his survey duties down to the May of 1849. August found him, with his wife, in "the smallest possible thatched cottage" among the oolites of the Dorsetshire coast, where he devoted the rainy days and his evenings to his work on the mollusca, happy in his wife's society, and "undisturbed by ceremony or callers." His labors on the Dorset coast resulted in showing that the Purbeck strata really belong to the oolitic series; that they are divisible into three groups, each characterized by a distinct fauna, but exhibiting no traces of physical disturbance in the lines of demarkation; that air-breathing mollusca lived at the period of the deposit of the Purbeck beds, and that these strata might be expected to yield (as they have since yielded) remains of mammals. Still, with all his work, he was in no danger of shrinking to the size of a slender Purbeck column, for the sea-air fattened him, and gave him what seemed a new lease of good health, with which he returned to London—"the ugly, unphilosophical, lion-hunting center of the universe," as he calls the great metropolis.

In 1850, the summer and autumnal rambles being over, and Forbes having returned to his post in London, he began the little volume (which he did not live to complete) on *The Natural History of the European Seas*. In this little work, finished and published in 1859 by Mr. Godwin-Austen, he treated of the range of seas which extend from the icy cliffs of Spitzbergen to the sunny shores of Africa and the eastern recesses of the Mediterranean, and pointed out the characteristics of the six provinces, marked by as many distinct centers of creation, which, according to his view, they comprehend.

In the memorable year of the Great Exhibition, the museum in Jermyn street was opened by the gifted Prince whose

death we have now to mourn, and Forbes entered readily into the government arrangements for organizing a School of Mines. He spent part of the autumn on a geologizing survey in Kilkenny and Cork, and the rest of the year in his lectures and in scientific contributions to various periodicals. And so, in work and hope, another winter passed pleasantly away, and at Easter he took a short holiday in Belgium, for the purpose, as he said, of "getting London fog out of his head." The geology of the Isle of Wight, and what he called the hatching of young geologists in Jermyn street, engaged his time during the winter of 1852. In his lecture at the Royal Institution in the following May, he pointed out the general nature of his researches among the tertiary strata of the Isle of Wight, which he regarded as really the most perfect series in Europe—perhaps in the world. In the same year he undertook a course of evening lectures to working men "On the Elements of Natural History." The summer found him at warfare with the government and the Treasury commissioners touching arrangements which appeared to him to impair the educational value of the museum, and to inflict injustice on the scientific officers of the survey; in fact, he seems to have been "undergoing the horrors of slow strangulation by red tape." Later in the year, exhausted by toil, he sought rest and change of scene in France, and in the volcanic district of Auvergne spent his holidays very joyously.

At length the offered resignation of Professor Jameson afforded the opening which Forbes, during his years of labor, had never ceased to desire, yet he hesitated to become candidate for an office which would remove him from London: the associations by which a residence of ten years had linked him to the metropolis were not to be lightly cast aside; he had, moreover, risen to high rank in the scientific world, his circle of acquaintance had widened every year, and in London fellow-laborers and many of his closest friends resided. Professor Jameson's resignation was, however, coupled with conditions which postponed the question for some months, and Forbes, meantime, employed himself in geological work, and wound up a geologist's year by joining Professor Owen and a scientific party at dinner inside the

model of the Iguanodon at Sydenham on the last day of 1853.

In the spring of 1854, the Edinburgh professorship was gained, and he quitted London and all its pleasant associations to take his place as Professor of Natural History in the University which, more than twenty-two years before, he had entered as a student. His chief inducement appears to have been the hope of leisure to reduce to order, and fit for publication, the scientific accumulations of busy years, but that leisure never came. It was destined that the energetic life which had in a few years achieved so much, and was then proposing so much for the future, should come to a sudden close. After a geologizing ramble in the Highlands with a large party of his students, he came to London to complete some unfinished work at the museum, but an attack of illness warned him to return to the north. At the Liverpool meeting of the British Association in

September, he was elected to the president's chair in the Geological Section, and in this honorable office made his last appearance in a public capacity. His review of Sir Roderick Murchison's *Siluria*, in the October number of the *Quarterly*, has a mournful interest as the last of his writings. Decreasing strength, accompanied by chills and feverish symptoms, interrupted his lectures of the winter session, and sinking rapidly, he passed to his rest on the seventeenth of November, 1854. In the Dean Cemetery at Edinburgh, on a slope that overlooks the water of Leith, "among the well-explored scenes of his youth, within sight of the sea to whose wonders so much of his life had been devoted, within the murmur of the city that had witnessed the efforts of his early years, and had been from first to last the goal of his ambition and the cherished haven of his rest, the earth closed over all that was mortal of EDWARD FORBES." W. S. G.

From the Dublin University Magazine.

OUR ARTILLERY PROSPECTS.

WHEN in February last we declared the inefficiency of the Armstrong gun in China, that announcement was little heeded; and yet there was no vagueness about our allegation. We announced the spontaneous ignition of Armstrong fuses whilst *in transitu* on board a vessel of the Peninsular and Oriental Company; whereupon the directors refused to carry any more: the disabling of two Armstrong guns, in action, by the blowing out of breech-pieces; the inflicting of casualties to skirmishers of the Forty-fourth by spinning away of lead wherewith the Armstrong shot and shell are covered.

Such statements, so far from overstating the case, fell short of conveying much that we had heard to the disparagement of the Armstrong gun. Thus, for example, what we have contented ourselves with designating "casualties" to the For-

ty-fourth, we have heard called deaths; and the statement passes current in military circles that once during the Chinese campaign, a battery of Armstrongs were only saved from capture by a charge of Fane's horse. That we did not overstate the case in regard to the inefficiency of these guns must be sufficiently evident.

The liberating hand of death has just broken the seal of confidence, and permitted the use of other evidence in support of our allegations, if necessary. It so happened that the article "Artillery, past, present, and to come," elicited a private communication from the late lamented Sir Howard Douglas, author of the celebrated treatise on naval gunnery. In this communication he announced that the failures set forth had been unknown to him; but that—having made the necessary inquiries—he found the state-

ments to be perfectly correct. In regard to casualties inflicted on skirmishers of the Forty-fourth, by the spinning away of lead in flight, Sir Howard stated in his communication, that from information received by him, so serious had been the effects, that firing over the heads of troops with Armstrong ammunition would scarcely be attempted again. Notwithstanding the seeming unconcern with which the advocates of the Armstrong system affected to treat all rumors of failure and inefficiency of the guns in China, these rumors begot anxiety. The Under-Secretary at War gave a general denial to specific charges. He praised the accuracy of shooting with Sir William's field pieces—what no one had ever doubted—he spoke to the deadly effect of Armstrong shells on troops—of which there could be no question; but he, not quite disingenuously, failed to discuss the real points concerning which information would have been desirable.

Wherefore—it may be asked—thus linger on the performances of the Armstrong twelve-pounder field-pieces at the present time, when so much solicitude has been evinced in regard to the inefficiency of his heavy garrison guns and naval ordnance? To this the reply is very obvious. If the Armstrong system be incompetent in regard to field ordnance, because of failure of adequate breech-closure and dispersion of lead from the shell, *a fortiori* must it be incompetent in its application to larger ordnance. The bigger the gun, the more formidable the difficulties; and this for many other reasons beside the two already specified.

No expedient yet devised by Sir William has been found competent to restrain the gunpowder flame at the breech opening. One after the other, all sorts of devices have followed, all equally inefficient. To call this gunpowder blast by mild names—to call it "gas," for example—in no way tends to lessen the evil or facilitate the solution of the Armstrong breech-loading problem. The breech-pieces in disparagement of which so much has recently been published, must either open upward, or on one side of a gun. If the latter, they may turn upon a hinge; if the former they must be lifted out bodily. Assuming the escape of flame—which Sir William prefers to call gas—to be preventable and prevented, the side-opening or hinge principle might

be adopted, and for all heavy guns would assuredly be adopted; but so long as this form of closure involves the "blowing down of right-rear men," as described by Captain Halsted—"their hair burnt off their heads and their eyesight gone"—the hinge method of closure is not admissible.

Gradually we find ourselves drifting into mechanical descriptions of the Armstrong guns, whereas it was our intention to place the matter in debate fairly before the public, divested of all improper coloring, quite foreign to the occasion. Whether the Armstrong system, or any other system be successful, or whether it fail, must be in the end determined by the result of practice and experiment.

Unfortunately, the British public has never yet come to understand the full measure of Nature's inflexibility in the vindication of her own laws. If a short Act of Parliament were passed decreeing that for all time to come the cohesion of metals should be altered, the better to adapt them to the needs of Sir William Armstrong's breech-pieces, the tendency of Englishmen would be to consider the thing done. Throughout the epoch of rifled ordnance construction which dawned with the Russian war and has continued up to the time being, it is lamentable to see how completely many candidates for honors on this field have wholly sacrificed the scientific aspect of the case.

To do Sir William Armstrong justice, he has conducted his operations far more after the true scientific standard than his once great rival; but Sir William, too, has begun to trim unpleasantly of late. His last letter to the *Times* would have done credit to his acumen as a special pleader, careful not to go beyond his brief.

It is pleasing to be able to turn from the thronging crowd of artillery projectors, whom the need of rifled ordnance has brought upon the field of competition, and rest the eye approvingly on two gentlemen, who, under many difficulties, have worked tranquilly on, step by step, in the purest spirit of induction. Blakely and Lancaster will hereafter be accorded a very honorable place in the annals of rifled ordnance construction. As regards the former, tired of approaching his own government, he makes admirable rifled ordnance for foreign powers. In the spirit of true philanthropy, Captain

Blakely seems to hold to the maxim, that all who choose to pay ought to have good guns to fight; therefore, with remarkable impartiality, any body who chooses to disburse the moderate sum of thirty-four pounds sterling is permitted to acquire a Blakely twelve-pounder piece of rifled ordnance.

What Lancaster has done to perfect the system of oval bore in ordnance since the Crimean war, we announced last February. Since then he has turned his attention to the fortifying of service cast iron guns, by a system of longitudinal trussing, which seems to contribute the necessary amount of strength to a part of ordnance—the breech—where great guns had hitherto been defective. Lancaster and Blakely, we say, have throughout what may be called the rifled ordnance era, treated the subject as one of pure scientific investigation—philosophically.

Having minutely studied all the peculiarities of the Armstrongs system, we believe that Armstrong guns, whether field-pieces or heavy ordnance, are and must be defective, as the very consequence of natural laws. Our opinion, however, is of minor consequence on this point. The main matter for present consideration is not what Sir William Armstrong fancies he *can* accomplish, but what he *has* already accomplished; and having regard to what he has already done, whether Parliament, next session, will be warranted in granting him a further subsidy. Such are the main questions for consideration; and, despite the strenuous endeavors of Sir William Armstrong's party, we think the public will insist on their being considered. To this end there can be no tribunal so fair and efficient as a Parliamentary Commission. Not a select committee, which would be a tribunal too little independent of extra parliamentary influences, but a *commission*; not necessarily composed of Members of Parliament, but gentlemen who, from their technical and scientific knowledge, would be qualified to speak with authority on the scientific issues.

Sir William should be clearly made to understand that the British public will stultify themselves if they rest satisfied with any so-called investigation by the Ordnance Select Committee or the War Office.

Since rumors of the failure of the Armstrong system have found their way into

print, we regret to notice a system of ingenuity much to be deprecated—one that can not prove ultimately advantageous to any person or any interest. The Admiralty, in October, declined to receive any more of the 100 pounder Armstrong gun *for the present*. This fact was officially announced, and is, therefore, well known. Since then Sir William seems to have been cultivating a crop of experiments, the results of which—ostensibly successful and extensively published—tend to confuse still more the already embarrassed evidence on this all-important subject. For example, about two months ago an announcement headed “breech loading ordnance” appeared in the *Times*, intimating that a large breech-loading gun of Sir William Armstrong's construction, but having the apparatus for closing the breech arranged to work from the side, was tried for quick and continuous firing by the Ordnance Select Committee; that the time occupied in firing fifty one rounds was only twenty-one minutes and fifty-six seconds; and that the escape of gas at the breech was effectually prevented. Accepting, for the purposes of argument, these facts as they stand—conceding this breech-loading gun to be eminently successful in all respects—would not the plain inference be, judging from the statement, that the gun in question was not only constructed by Sir William Armstrong, but that it was an Armstrong gun—according to definition, *the* Armstrong gun, in respect of which so much adverse criticism has appeared, and in behalf of which Parliament voted two millions? Not a bit of it. The gun in question is made on the Prussian model, with the means of breech-closure invented by Messrs. Church and Goddard superadded.

Nobody doubts that Sir William Armstrong may in the end make a satisfactory gun if profusely furnished with public money, and if abolition of the patent laws be accomplished; but why this concession and revolution in favor of any individual? and why does the War Office make it a point of honor to recognize the merit of no guns except his? Captain Blakely has again and again offered to manufacture at his own expense a piece of ordnance, the shell of which should penetrate a target equivalent in resistance to the Warrior. Why has his offer not been accepted? Mr. Lancaster has long succeeded in perfecting his system, as ex-

plained by us in February, so that spiral oval shells may be fired successfully from oval bored guns. His guns can discharge all the ordinary ammunition of the service in addition to their own. Why, then, is the Lancaster system kept so assiduously in the background?

Enough has been said, we fancy, to prove that an inquiry, minute and impartial, is urgently required. That there will be an investigation of some sort, we do not doubt; and we may be pardoned for giving utterance to the hope that the daily press may not be made the cause of embarrassment or confusion to the tribunal of investigation, wherever it may be installed, and of whatever sort it may be.

Here, whilst on this topic, it is lamentable to contemplate the flood of error which the *Times* newspaper has caused to be circulated in respect of the two artillery constructors, Whitworth and Armstrong. For example, in regard to the first, the *Times* newspaper, quoting from a Manchester paper,* caused the announcement to go forth, that Mr. Whitworth's experiments, conducted at Southport, in July, 1860, were eminently successful. We do not overmuch like to employ the words "success" and "failure," because of their indefiniteness; but only by a long stretch of fancy indeed could Mr. Whitworth's experiments at Southport be called successful. After firing near one hundred shots at a target a thousand yards off, the target was not once hit. More than a dozen friction-tubes were exploded before the eighty-pounder could be fired; all the friction-tubes were launched violently backward; and the major part of spent cartridges had to be dug out of the eighty-pounder by a hand-spike. Mr. Whitworth is a good mechanic, and, when he turned his attention to artillery and small-arms, much was expected of him. He has been liberally supplied with public money, and has in every way had a fair field.

The public have been misinformed in regard to the achievements of this gentleman as a manufacturer of fire-arms; and we have to express our regret that the *Times* has been foremost in promoting the misconception.

It is time the reign of misconception should end. The practical issue is, that

* Why was the Manchester paper quoted at all? A delegate from the *Times* witnessed himself the experiments; why did he not record their issue?

whilst the French have good broadside guns for their navy, and whilst Captain Blakely is arming the land and sea forces of Spain with good rifled ordnance, England has not at the time being one single accepted broadside piece of rifled ordnance. The Admiralty have done their duty so far as in them lies. They refuse finally to recognize the Armstrongs presented to them by the War Office and Ordnance Select Committee. But is it not a folly, that the Admiralty should be in any way dependent on the War Office and the Ordnance Select Committee for the choice of their armament? Would it not be more rational that the Admiralty should have their own technical staff of artillery constructors, engineers, laboratory officers, etc., for themselves? Naval guns involve special conditions, which naval men, surely, may be expected most clearly to perceive. Thus, a recent letter from Captain Halsted first made known the startling fact, that be the Armstrong ordnance ever so successful as engines of protection, they necessitate such 'tween-deck height, that ships would have to be built on purpose to hold them. And all this sacrifice in behalf of guns that even in the greatest emergency can not be loaded at the muzzle; can not fire any ammunition but their own; can not discharge red-hot shot or shells filled with molten iron; dare not use cartridge a trifle too short, for fear of bursting the gun; and at any moment may do, as they have done, blow down rear right-hand men if provided with side apertures; and, if made on the upward aperture construction, blow their vent-pieces, as on board the *Excellent*, clean through the deck.

Of course, these observations are made in the fullest cognizance of Sir William Armstrong's two rejoinders in the *Times*. We have studied these documents carefully, and fail to perceive that they disturb the adverse evidence previously adduced in any particular. Sir William's last rejoinder was a most ingenious document. Sir William cites the practice of a heavy gun made by him; but which, indeed, was wholly different from the Armstrong gun by definition. Now whether this new gun—the shunting gun, as it has been called—be good or bad, we do not propose to argue. All we wish to state is, that it wholly and absolutely differs from the Armstrong gun; and that Sir William never attempted to make this

variety of ordnance until practice had demonstrated the inefficiency in certain respects of the real Armstrong weapon. This is a fact which would never have been gathered from Sir William's own explanations.

We have already stated, that if the Armstrong guns in their smaller forms do not answer, then, *a fortiori*, can they not answer in any larger form. This conclusion is naturally deduced from a consideration of the principles involved. It might be theoretically possible that a gun of some given pattern should be reliable enough as a field-piece, but that it should fail on a larger scale. Our cotemporary, the *Saturday Review*, imagines this to represent the case of the Armstrong guns. Taking for granted the demonstrated insufficiency of the larger Armstrongs—a thing sufficiently proved by Sir William's endeavors to mix up shunting ordnance with considerations of his own original weapon; proved, moreover, by his own admissions last year before the Society of Civil Engineers—the *Saturday Review* concludes, that the thorough efficiency of the Armstrong field-pieces may be considered as demonstrated by the experience of the Chinese campaign. We should like to be able to adopt this view of the case; but it is diametrically opposed to our evidence. It is wholly repugnant to the high testimony of Sir Howard Douglas; and it is, as we shall presently show, inconsistent with the report of the Chinese correspondent of the *Times* newspaper. Again, Major Hay being called upon to give evidence favorable to the Chinese practice, damages the cause his observations were meant to serve. "It would have been most surprising," he states, "if slight alterations had not suggested themselves in both guns and ammunition, considering that they were being tried for the first time, and that they were most jealously watched by all. In fact, from the instructions I received before leaving England, it was my duty to point out the slightest defect. This I did; and I was glad to observe, in a recent visit to the Royal Arsenal, Woolwich, that these defects had all been remedied, in a manner which experiments had proved to be most successful."

Again, in another part of Major Hay's letter, we find the expression: "The guns never ceased firing because of any casualty to our men." The tenor of this

letter is, we say, most damaging when regarded as the answer—the best that could be given, as is fair to assume—to the statements brought forward by us in February last; published in the *Mechanics' Magazine*; vouched by Captain Halsted; and lastly, by that very high authority, the late Sir Howard Douglas. It is fair to assume, that Major Hay would have testified, had he been able, that breech-pieces did *not* fly out; that Armstrong guns had *not* to be withdrawn, no matter from what cause; that fuses did *not* spontaneously ignite *in transitu*; and that none of our men suffered casualties by the dispersion of lead from Armstrong shells fired over their heads.

He acknowledges the necessity for effecting slight alterations both in guns and ammunition. What were they, and why not allow the public to judge as to their gravity? He pronounces confidently as to the result of experiments at Woolwich; but in what manner can experience gained with recent ammunition rebut the allegation that Armstrong shells and fuses can not withstand storage, and climatic vicissitudes?

Hear what Sir Howard Douglas testified concerning the alleged danger from lead dispersion, in a letter addressed to the *Dublin University Magazine*:

"I have good information," he wrote, "respecting the real performances of the Armstrong guns, which *entirely corroborates what you state of the lead having blown off, to the great peril of the troops lying down in front, and over whose heads the shells were projected; and that danger is now so manifest, that it will not, I think, be again attempted. This will be a serious disability in war, for batteries have often occasion to fire over advanced works.*"

In reply to this precise testimony, Sir William Armstrong and his friends have not adduced one positive denial. What then is the inference? Strangely enough, the China correspondent of the *Times* has been popularly thought to have established the character of the Armstrong field-pieces in the Chinese campaign; and this despite the following positive testimony. We quote it verbatim:

"At six A.M., on the fourteenth," (August, 1860,) wrote poor Mr. Boulby, "the whole army was afoot, and soon after that hour the march commenced. The guns were in front, with two hundred rifles in skirmishing order, under the command of Major Rigaud. Then followed the first brigade, consisting of the

Royals and Twenty-first, followed by the Second, the Queen's Sixtieth rifles, and Fifteenth Punjabees—the division being under the command of Sir John Michel. The second division halted on the ground occupied by the first on the previous night. Just at the angle where the river bent to the right, a casemated battery had been formed by the Tartars, in a creek on the south bank, with a view of taking the allied troops in flank. At a turn of the stream three quarters of a mile lower down, another battery was visible, whose fire crossed that of the creek guns. The first of these batteries fired the previous day on a reconnoitering party, so it was resolved to silence it before commencing operations against the intrenchments. Two of Baring's Armstrongs were detailed for the purpose, and at twenty minutes past six they opened on the Chinese at two hundred and fifty yards. The enemy were not slow in replying, and for ten minutes a very pretty duel was carried on. The range seemed too close, so three of Desborough's 24-pounder howitzers were ordered to the front, and in five minutes the Chinese fire was completely silenced."

Here, then, is the record of one who had pronounced very favorably on the merits of Sir William's field-pieces on a previous occasion. How damaging is his present testimony! Here we confessedly

have guns that could not defend themselves at two hundred and fifty yards, because—and the reason is most amusing—"the range seemed too close," whereupon a howitzer battery had to be brought in front, (a euphemism for "the Armstrong battery had to be withdrawn,") and "in five minutes the Chinese fire was completely silenced."

It is impossible, we think, to weigh all this evidence, gathered from independent sources, without coming to the conclusion that the Chinese experience very far from justifies the common belief in the safety and thorough efficiency of the Armstrong field-pieces. That they shoot correctly, no one doubts; that they shoot fair, is a necessity, being rifled; that the segmental shell is deadly against troops is demonstrated. Conceding all this, however, the Armstrong field-pieces and ammunition may both be still defective; and as to the larger guns now being made by Sir William, whether good, bad, or indifferent, they are fundamentally different from the original Armstrong gun—the weapon that has been fancied to have achieved so complete a success.

From Fraser's Magazine.

T H E C I T Y O F T H E S U N .

MANY of us have learned in our day how good it is to turn our steps out of this crowded, dusty Europe, far away to the calm old lands of the East. *Here* indeed is our real life in the great throbbing heart of the world; here in our own England, where the cloud rests over the "million-peopled city," fitly as over the battle-field of humanity. Here are our cares, our labors, our soaring, struggling hopes, our keen, sharp joys, our solemn duties. 'Tis a poor choice to give up England in our manhood, and abandon forever all its purpose and its noble strife, for the lot-eater life of the South. At this hour, when every voice and every arm are needed to grapple with error,

and want, and sin—when it is not one course only of effort which we would pursue, but a hundred lives of labor we would fain be allowed to live at once, if so we might do somewhat for the Right and the True—it is, I say, a pitiful thing to quit the field and wander away to dream, and gaze, and ponder; and live, as perhaps man may have earned the right to live in centuries to come, when Giant Despair and Giant Sin are dead, and "righteousness and peace shall kiss each other." Yet even now, *for a time*, for a passing experience, there is nothing better for us than to cool our fevered lips in the waters of old Nile, and wash our wearied eyes in Jordan. We see

this life in a new aspect from that different world, and we return to it with other thoughts. The baser part of its ambitions, the cumbrous paraphernalia of its luxuries and its forms, look poor and childish and vulgar when we remember them as we sit under the shadows of ruined empires, or learn in the free life of tents with how few and how simple things can all our multitudinous wants be supplied. A voyage to the East from Europe is like escaping from some noisy, contentious assembly, with its glaring gaslights and suffocating air, and finding ourselves suddenly in the cool, fresh summer morning, with the soft mists still lying around us, and Lucifer yet shining serenely in the pale blue sky. *Das Morgenland* it is, in very truth, and the morning of our own lives comes back to us there in the same mysterious way as when we hear the half-remembered notes of our mother's songs, or, burying our faces in the moss and grass, inhale "the field-smells known in infancy."

There is no possibility of conveying such impressions as these in written words or painted landscapes. The inspiration evaporates as in a translated poem; so far as it can be done, many beautiful books have already accomplished it. After *Eothen*, and *The Crescent and the Cross*, and *Eastern Life*, who needs further description of Syria and Egypt? Let the reader exculpate me from any such presumption as the attempt to supply a better representation than these. Only as we are told that no landscape has ever been twice beheld alike by mortal eyes, but that grass and trees, and sunlight and shifting clouds, are forever varying the scene, so I would offer one more glance at those bright lands reflected in another human soul. He who can not himself wander

To a region far away,
On from island unto island, at the gateways of
the day,

may be content to spend an hour, in *thought*, at least, in the "shining Orient," with one companion more. Be the ride over old Lebanon dull or otherwise, he will return from it all the fresher to England.

In the course of a somewhat adventurous solitary pilgrimage to the East, I found myself three years ago in the singular locanda, a mile from Beyrouth,

whose beauty of situation is so vividly depicted by poor Eliot Warburton. I had landed at this point from Jaffa, after a visit to Palestine, hoping to find some party of travelers proceeding to Baalbec and willing to admit me into their caravan. Rarely does an Englishwoman fail in any corner of the world to find her countrymen and women obeying the instincts of their Viking ancestors, and going up and down upon the earth like another "roaring lion" beside the British king of beasts! We ask an Italian or a French or German woman, whom we meet by chance straying from the "fatherland" into some neighboring country: "Does Madame travel for health or pleasure?" We ask an English lady by her own fireside: "What on earth keeps you at home this year?" It is almost too much, this Anglicizing of the world. Under the vast shade of Cheops, as I rode up in solemn thought, it was startling to be addressed by some kindly unknown compatriot: "Would you like to join our lunch, ma'am? Here is some capital Bass's ale!" Reclining in our tent in Hebron, within a few stones' throw of the grave of Abraham, it was mortifying to find our Druse dragoman serve our evening meal on *willow-pattern* plates! But, for all the absurd associations such nationalities produce, I envy not him who could make a great journey in our day, and not come back proud and thankful to belong to our Saxon race. The trust in our word, the respect for our courage, (assumed even in a woman,) the belief in the steadfastness of our resolution, is something that does one good to meet. I know not that I did not like as much as any compliment I ever heard, the remark of a poor Italian camereria: "Si dice sempre, 'Pulito come gli Inglesi.'" (We always say, Clean as the English.)

Ill-luck (or perhaps special good-luck) ruled that I should find nobody at Beyrouth, English or otherwise, intending to go to Baalbec at the time of my visit. I remained, therefore, a few days at the hotel, waiting to decide what I should do, and enjoying delightful solitary walks across the little triangular peninsula whose base is Lebanon and whose apex extends seven or eight miles into the blue Levant, a little way north of Tyre. One morning I remember having strolled through the gardens of mulberry and almond, kindly guided every where by the cour-

teous peasants, till at last I sat down to read close over the sea, which broke with its delicate fringe of foam on the low rocks below. Overhead an immense hedge of cactus sheltered me from the warm spring sun; while to the right rose up the glorious Lebanon, with his feet in the sea, and his snowy crown towering over the fir-woods up into the intense blue sky. I took out the little *Shelley* which I had loved to read in the green, old woods of the home of my youth; but nature was unrolling a poem before me more wondrous than the *Prometheus*, more balmy than the *Sensitive Plant*, and I could only gaze and dream, and be thankful. Presently there came by a young mother, with a little girl running beside her, and a baby of a year old in her arms. Like nearly all the Syrian women, she had a sweet, soft face, and the lithesome figure and pretty colors of the graceful dress made her a charming picture. I touched my breast and head, of course, with the usual salutation, "Salaâm aleik! (Peace be with you!) and received the fitting reply, "Aleik salaâm!" and I suppose I looked at the little child as mothers like their infants to be looked at, for, without a word or a hesitation, she placed the little fellow in my lap, and then in the gentle Eastern fashion seated herself silently close beside me. We talked a long while, if talking it could be called, when signs and smiles and my dozen words of Arabic had to do all the duty; and then she rose and kissed my hand, and passed away down the shore, singing some sweet, monotonous song. "Good by!" I thought; "pretty Amina, and dear little Mustapha, we shall not meet again, but your ready claim of human relationship has done my heart good, and will not soon be forgotten."

When it became evident that I should find no companions to Baalbec, I was obliged to resolve for myself the problem, Should I venture on the journey alone? and having obtained from our kind Consul the recommendation of a trustworthy old Turk as a dragoman, I did not long hesitate. It was a lovely, soft morning in March as we rode out of Beyrouth, Hassan and I, on our good Syrian steeds, and the muleteer on foot beside his beast laden with all my worldly concerns—for that blessed week, at all events. My tent, my kitchen, my cooking and eating utensils, my food and drink, my bed and

bedding, and table, and stool, my bath and carpet-bag, and leather traveling-case, all the things with which we crowd so many rooms, dwindled to the burden of a single mule. Springing on my English side-saddle, and riding quickly out of the entangled mass of filthy alleys which forms "the rising emporium of Beyrouth," I inhaled with ecstasy the perfumed air of the orange and almond groves outside the town, and gloried in the prospect of another week of the free life of tents; Lebanon before me, and Baalbec beyond! Baalbec! the name alone seemed teeming with sublime mysteries. Miss Martineau says, that when she was a school-girl, she had "*taken on herself to despise Baal*," but that he appeared a very different personage in his own magnificent Heliopolis! For me the old forms of heathenism had long possessed a strong fascination. Amid all their hideous aberrations, their gross pollutions, I had delighted to find traces of the "light which lighteth every man that cometh into the world," the "law written on the hearts" of those who knew not Moses. Highest of these ancient faiths, of course in moral purity, stands the Persian fire-worship, and far may we look, save in the Hebrew writings, for grander thoughts or more spiritual prayers than those of the *Zend Avesta*.

"Hurt not thy neighbor; be not wrathful; do not evil from shame. Fall not into avarice, nor violence, nor envy, nor pride. Answer gently thine enemy." "The procrastination of a good action is a sin." "There are those who love not to give. The place which awaits them is below." "O Thou who dwellest in primeval light, glory, happiness, and intelligence—absolute master of all excellent, and pure, and holy beings, Ormusd, Lord of Light in heaven, make me perfect! Give me an holiness which nothing can shake, in my actions and my words; give me the power to do that good which I desire." "I pray thee, O Ormusd! that the wicked become believers, that they be henceforth without sin." "I believe in God and in his law. Hell shall be destroyed at the resurrection. I am resolved to do right. Come to my help, O Ormusd! (*Jeschts Sade, Vendidad Sade, and Patéts* from the *Zend Avesta*, translated by Du Perron.) In what degree this high Persian faith (still existing in no ignoble type among

the Parsees of India) was connected with the sun-worship of the gross Phenician mythology, it is hard to conjecture. Perhaps there was no relation at all, and Baal, (or Bel,) the sun-god, never received in his impure fanes the homage of a true worshiper of Ormusd, "the supremely wise Lord," of whom the *Zend Avesta* only tells us: "His light is hidden under all that shines." At least the faith of which Heliogabalus was hierophant had fallen as low as ever the religious sentiment of human nature may be debased. Yet does the "golden star," Zoroaster, throw a mysterious halo over the fire-worship of East and West; that faith which blazed out in the Bactrian plains before the dawn of history, and which lights yet its memorial fires each mid-summer eve in the vales of Christian Scotland and Ireland.

To return to my journey.

Nothing can be conceived more delicious than the odors of these lower slopes of Lebanon. I do not know the name of half the trees and plants flowering round the path, some with pungent aromatic perfumes, others luscious, like the orange-blossoms; and then, again, clumps of odoriferous pines, wild and pure, and under them growing the dwarf lavender in the crevices of the rocks. We hardly guess, I think, how much of our enjoyment of summer in every climate comes from the gratification of our sense of smell, not only from the recognized perfume of special flowers, but the united fragrance of all the vegetation around us, and of the ground itself when freshened by rain or tillage. The sweetness of the violet in spring is, as Shelley says,

"Mixed with fresh odor sent

From the turf, like the voice and the instrument,"

and a music more subtle than that of sound steals into our hearts. It must have happened to us all, sometimes, I suppose, to have been startled by the vividness of some feelings thus derived, some sense of sudden joy, some grasp of happy memory of the love which blessed our childhood, some aspiration of heaven breathing through the cares of earth. What has happened to us? Only that we have passed near a jessamine or a honeysuckle, or driven past a hawthorn hedge, or ridden under a few fir-trees on the hill-side. And He, to whom the world

is "as the dust in the balance" in the immensity of his universe, he has fitted those flowers and trees to yield that fragrance to our senses, fitted our brain and heart to receive from it those softening influences! Methinks, if there were no other proofs in the world of God's goodness, the flowers would supply them in abundance. Answer it to thyself, poor soul, that doubttest of his love, that darest not trust the voice in thine own heart telling thee that thy Father in heaven is *all* which that heart can adore. Why has he made these flowers? why does he send to thee these *little* joys, as gentle and unnoticed often as a mother's kiss upon a sleeping child? There is not, it would seem, a conceivable reason to be given for the existence of flowers, (at least for their beauty and perfume,) other than the intention to provide for man a pure and most delicate pleasure. Geologists tell us that in the earlier epochs there are few traces of flowers; such as there were being small, and probably of the secondary colors, mere vessels for the ripening of the seeds. Only when the human era approached, the order of the rosaceæ appeared, the fruit-trees with their luxurious burdens, and all our brightest and sweetest flowers, till "the wilderness rejoiced and blossomed as the rose." Thus, as the coal, and the iron, and the stone were laid up in the dawn of time for our use to-day, so the flowers sprang up over the earth for our delight and to deck the cradle God had prepared for his child! The incense in the churches of the Greek and Latin communion does not fail to awaken holy thoughts in those who have associated it with their earliest worship and purest devotion. A pitiful thing is it that God's own censers of the flowers should ever open before us without some happy and tender thoughts of Him who has made them

"Spring from every spot of earth
To show his love is there."

As I ascended slowly up the giant staircase of hills piled on one another, the scene became more and more beautiful, and the vast expanse of the sea below seemed marvelous. I could scarcely believe that the line which divided the sky half-way from the zenith was that of the horizon. On the spot where my tent was pitched for the night, I could still see the

promontory of the old Berytus, while a wilderness of verdant slopes and huge spurs of the mountains lay between. The pine-trees fringing the far-off summits to the west, stood out for a while against the evening sky, and the valleys grew slowly gray and dim, and then after a little time the lights twinkled here and there in the Maronite villages in the hollows of the great hills, and high up in the convents perched on the snowy summits, and the stars came out in the radiance of the Syrian heavens, and Orion strode over Lebanon.

Regretfully I turned at last for the night to my little tent, just large enough for my bed and table and stool and bath. Close by was the picturesque "Khan," an open shed, where Hassan and the muleteer slept, and where, as usual, we found a man to supply us with a fowl and eggs, and delicious fresh water. These "Khans" give us Europeans a strange idea of the nations which from immemorial time have erected and preserved such harbors of refuge open to every wayfarer at scarcely above an hour's journey from each other; and yet, while providing the *inns*, have never dreamed of forming *roads*, even in the rudest and simplest manner. I had asked my Piedmontese dragoman Abengo, riding out of Jerusalem near Colonia:

"Why do not the people throw these shocking boulders off the roads?"

"Off the road, Signora? They always throw them *on* it, and *off* their fields."

"But has the government nothing to say in the matter?"

"Il governo? Cosa sia il governo, qui, Signora?"

My tent was of course close to the mule-track which passed the khan, and formed the regular highway from Beyrouth to Damascus. I had not been long asleep on my little gridiron of a bed before I was awakened by the arrival of a caravan with mules tumbling over the tent-pegs, and a general hubbub and chattering of Arabic. It was not very pleasant, but courage had come in my long wanderings, and neither that nor many subsequent similar disturbances prevented me from rest. We rose early next morning, and breakfasted before dawn, not *too* luxuriously, in the chill drizzle, while my tent was struck and placed on the mule, and our horses saddled. Reader, do not envy that luxurious

meal—shocking bread, (dry, of course,) two eggs, and a cup of tea without milk in a tin cup, which possessed a peculiar flavor of its own, contracted (I could not but surmise) from being used as the receptacle of Hassan's private store of onions! Soon I was on a beautiful young chestnut, which the poor old fellow had designed for his own especial delight, and in a few hours we were scrambling up such snowy heights as put both the horse's mettle and mine to the test. Nothing can be conceived more unlike what we call a road than these tracks over Lebanon, to which the worst of Alpine passes ever used for mules or horses is a joke. My journey chanced to be at an unlucky moment, when the snows were beginning to melt, but the good summer passes still quite unattainable. Frequently the bed of a torrent formed our path, and scrambling on foot over the adjacent heights, I watched with amazement the horses driven by Hassan up actual cataracts with rocks as high as their breasts, the fine animals clambering up them like so many cats in the midst of the roar and rush of the waters. On one occasion, when we had been making an ill-advised short cut, Hassan informed me there was nothing for us but to descend a certain tremendous declivity on which the untracked snow lay thick, and whereon (as there was no track at all down that hill-side) it was impossible to guess into what hollows our horses might fall. At the bottom there was a sharp ledge and precipice, on which the snow could not lie, falling sheer into a deep valley below. The affair was to make our horses go down to the ledge, and there turn short, and ride along the edge till we could descend more safely. Down we went in a moment up to the horse's knees, and then, according to the irregular rocks under us, to the girths, the poor brutes floundering on, and the steep declivity forcing them, helplessly tumbling forward, till in a few moments we were on the ledge over the precipice. The impetus with which we had descended, added to my weight, rendered it apparently impossible for my horse to stop himself. The fine young creature knew his own danger, however; and as we hung for a few seconds on the edge, his struggles were frantic.

The grandeur of the scene in some of these defiles is indescribable. It does

not in the least partake of the Alpine character, having no pointed "aiguilles" or celestial "Jungfraus" rising up over the clouds into the blue heaven like a glorified soul—a Virgin in an assumption of Guido. Lebanon is an aged, hoary saint with giant limbs, kneeling upon earth. The rounded hills, the hollow cones, are all on an enormous scale. The desolation of the barren heights and the luxuriant verdure of the valleys surpass every thing in Europe. Sometimes in the heart of the great mountains a chasm opens deep and dark as into the mouth of hell, or as the glimpses we gain in God-illuminated hours into the abysses of our own sinful souls. And lo! the path winds down into the pit where, it would seem, no foot could tread, and the sunlight is blotted out, and we go deeper and deeper, with not a shrub or blade of grass over the barren cliffs, till in the crevices of the rocks we suddenly find the sweet wild hyacinth and the lovely white lily of Palestine, Christ's chosen token of the father's love.

After many long hours of alternate mounting and descending of these hills and vales, the traveler obtains a sight of the Vale of Baalbec lying like a vast green lake between him and the parallel chain of Anti-Lebanon. The effect is very singular, the plain being nearly flat, and the verdure of its fields contrasting with the cliffs of the mountains, which are of a red and even crimson hue, while the summits are of glittering snow.

To confess the truth, this Valley of the Haraun had no small share in luring me to my present adventure. There had been a time when I had read *Paradise and the Peri* with all a child's limitless delight, and still I remembered every word of it by heart, and felt perhaps far too little grown beyond the longing, which had once brought many a tear, to say like the spirit ascending from that flowery plain.

"Joy, joy forever, my task is done,
The gates are passed, and heaven is won."

When shall we all shake off this effeminate yearning for peace and bliss, and know that it ought to be

"Life, not Death, for which we pant;
More life and fuller, *that we want!*"

More life to be, to do, to suffer all that is

allotted to us here in this world, where there is larger space for all good and holy things than we shall ever fill? The teaching of the miserable theology of the last century infects us still, though there are signs on every hand that we are outgrowing it. The doctrine which Paley taught so lucidly, that "Virtue consists in doing right, *for the sake of everlasting felicity*," is perhaps rarely preached now in all the effrontery of its baseness. Yet we go on most of us mixing up such hopes with more disinterested motives, and in the depths of our hearts longing—not for more work to do and more power to do it to serve God and man—but for mere rest, or poor paltry happiness. Few of us could die as did last year a friend, saying, as he did to me: "Of course I do not fear to die, but I would fain have finished my work. I had great powers committed to me, and I have but half used them." This is the right spirit; not our indolent sighings for paradise and repose.

Only to one class of human beings, I believe, is it well to speak much of heaven. To those among us whose lot is mainly a happy one, the sense of immortality is fitly placed in the background of consciousness, to give this life's trials an importance they could not retain were we able always to view them from the "Delectable Mountains" whence heaven seems so near; and it is not to be desired for *us* that we should force this consciousness into more vivid prominence. But to our unhappy brothers and sisters whose earthly lives are steeped in vice and squalor, whose homes are the crowded lodging-rooms of hideous lanes, where the moral atmosphere and the natural air are alike tainted by the foulest filth and sin, there is need that we should speak of another life. We need to tell them that these sordid courts and reeking alleys are not all our beautiful world, that there are other flowers growing in wood and field than those they see sickening in the pollution of their gin-palaces; and above all, that there is

"A great world of light that lies
Behind all human destinies;"

in whose dawning radiance the most sordid existence may be glorified even now.

It was rather a sad disenchantment from the visions which *Paradise and the Peri* had awakened, which awaited me.

As we approached the valley of Baalbec late in the day, after eight or nine hours' hard riding, I found myself constantly repeating:

"Now over Syria's land of roses
Softly the light of eve reposes,
And like a glory the broad Sun
Hangs over sainted Lebanon,
Whose head in wintry grandeur towers
And whitens with eternal sleet,
While summer in a vale of flowers
Is sleeping rosy at his feet."

Alas! nothing could be much less like a vale of flowers than it was at the moment of my visit. The corn was just sprouting, but spring had not begun, and the contrast to the carpeted fields of Palestine glowing with lilies, and tulips, and the yellow stars of Bethlehem, and fields of the red "tears of Christ," struck a chill to my anticipations. How quickly does skepticism set in! I began immediately to press my audacious doubts to the most frightful lengths; were there actually such creatures as *Peris* at all? I explained the query to poor Hassan. Had he heard of *Peris*? Were there any such beings?

"Commande, Signora? Cosa sono *Peris*?"

"A sort of *Djinns*, Hassan, who live on nothing but perfumes, and were turned out of paradise."

"Oh! yes—there were all sorts of *Djinns*. The Signora will wait till we come to Baalbec; there she will see the stones placed by the *Djinns* in the temples of the idols. None but *Djinns* could have placed them, they are so large."

"Hassan, I intend to have my tent pitched among the ruins. There is shelter among them, I suppose, for you and the muleteer?"

"O Signora mia! it is quite out of question. Impossible! impossible! There are great black vaults; *Djinns* built them; *Djinns* are always going about Baalbec. I will show the Signora a nice clean locanda outside the ruins where they wash every day. That will suit the Signora. But Baalbec! oh! nò, nò, le rovine! demonij! *Djinns*!"

"But *men* built those ruins, I assure you, Hassan. I have read a book written at the time when men still made such temples," (it was needless to name Vitruvius) "in which the whole method of raising those huge stones is described."

The Turkish incredulity evinced at this information, instantly carried me back in memory to a scene in the pleasant Northern Hay at Exeter, whither I had chanced to stray during a brief sojourn in the charming old city. I had been laboring to convince a group of poor women at work under a tree that it was *not* (as they averred) a planet which drove the unfortunate culprits into the neighboring jail, but that planets were vast worlds rolling through the summer evening sky over our heads, leaving quite untrammelled the freedom of man to pick—or not to pick—pockets. "Them as reads books," replied the spokeswoman, taking the sense of the meeting with a glance, and summing up the case (literally) from the bench, "them as reads books learns many things, but we knows it *is* a planet as sends them to jail!"

It is very droll to see the way in which a true Oriental treats English ideas; the quiet superiority with which he smiles at our enthusiasm about old walls and old stories of idolaters whose souls are in *Jehanum*, and the ridiculous state of fuss we display to jump up from our meals, and go on hither and thither, instead of sitting the rest of the day calm and cross-legged, enjoying tobacco and existence. Hassan was a kind old fellow, as considerate of my comfort as his comprehension of an English lady's requirements permitted. But his stoicism quite put me to the blush when I mentioned such trifles as that the iron (in my stirrup) was entering into my *sole*, and that the absence of a bar in my gridiron-bed did not increase its suitability for repose. Whenever I was in particular perplexity concerning the awful precipices we were descending, and looked for Hassan's aid to force my horse to attempt them, to a certainty I saw him placidly rolling up a pinch of Latakia into a cigarette, striking his light and proceeding unconcernedly with a quiet response to my appeal: "*Venga, Signora, non c'è pericolo.*" At last we reached the level plain through cataracts of melting snow. It was very cold, very bleak, very dismal. No signs of a *Peri* any where. Coming up to a small ruined building I inquired: "Is that an *Imaret*, Hassan?"

"I don't know what an *Imaret* is, Signora."

It was disheartening! The mule was far behind; so we rested beside the brook

which I had hoped might have been the "small Imaret's rustic fount;" and some Maronite women coming up, I began to sketch them, and was soon surrounded by a merry group. Two hours more brought us to the large village of Zachly.

The houses are all of mud, with flat roofs made of branches, and covered by another coating of mud. Inside they are mostly supported by the stem of a tree in the middle, and are divided into two or three chambers. Along the walls on shelves are ranged rows of tin vessels just as in our cottages; and in the corners of several I saw wonderfully elaborate iron grates. A recess in the wall contains piles of mats and the hard cushions of raw cotton, which form alike chairs, sofas, and beds. The rough unplanned door, with its wooden lock, and the windows half-stuffed up, reminded me of an Irish cabin, a similitude much enhanced by the abundant population of fowls, cats, and dogs, and, above all, of lovely rosy little children. We stopped outside the first tolerable habitation, and asked leave of the owners to pitch my tent in the angle of grass outside it. I was more than welcome. In five minutes while Hassan was arranging the tent, I had a perfect court of the poor simple creatures gathering round me, kissing my hands, saying soft kindly words, and giving me their only luxuries, daffodils and sweet carrots. One pleasant-faced old woman having found my hands apparently to her taste, proceeded to put her arms round my neck, and kiss and bless me in the most motherly way. I wondered whether the poor soul might have had a daughter of whom I reminded her, for she seemed much affected in some unexplained manner. To amuse them I showed them the contents of my traveling-bag, writing and dressing and luncheon apparatus, each new object calling forth ecstasies of wonder and delight, and screams of "Taib! Taib katiyeh" (good! very good;) and the smell of eau-de-cologne and toilet-vinegar, and taste of biscuits and bits of sugar, appearing to surpass all experience of earthly luxuries. My little rough sketch-book was hardly comprehensible till I began to draw the children, and there was much amusement, and many undeserved "Taibs;" and then they each told me their names, which I wrote down in the order following:

First, my hostess, a beautiful young woman with soft, bright color and kindly brown eyes. Her name and that of her dear little child, who could not be kept from running up every five minutes and giving me a shy pat on the knee, was "Helena." When I made her understand it was a name dear to me, she showed her pleasure very prettily. Then came, as they sat in the circle on the ground or stood behind it, Mareen, and Wardeya, and Yasmeen, (Jessamine,) and Myrrihi, and Yussef, and Rachayl, and Maddalena, and Maroon, and Fatmè, and another Yussef, and Boalee, and Georgi, and Aidà, and Malachee, and Dieb, and Niddy, and Barbàra (pronounced with the middle "a" intensely broad,) and Papes Salieh, the priest. This last was a noble-looking young man with high cylindrical black cap and black robe, and long flowing brown hair. When it was explained to me he was the priest, (as I of course recognized at first,) I made him a respectful salutation, whereat he was highly pleased, and showed me afterward all the kindness in his power.

Having finished my dinner, and given bits of sugar to the children, and bones to the respectable dog of the establishment, who thenceforth constituted himself the sentry over my *camp*, (of one,) I retired into private life by a general salaam and "kataherib," (thank you,) and closed my tent-door for the night; not, however, from public gaze could I retire so easily. I had just wound my watch, and prepared for further steps toward repose, when some faint sounds caused me to look up and round. Lo! through the slit of the tent-door a whole perpendicular row of bright laughing girls' eyes were peering at me; while Master Niddy and Miss Amina, and sundry other small imps, were extended on the ground poking their funny little hands under the fringe of the tent. Poor Niddy! I had looked in vain for the stray "babe of Paradise,"

"Among the rosy wild flowers playing,
As rosy and as wild as they."

Niddy was always playing with Hassan's cooking utensils, to the exasperation of that worthy, who finally gave him a push with the portable kitchen itself, whereby Niddy was sent howling away. Five minutes afterward, however, he was peeping at me as comically as ever, and

performing the most vivacious pantomime whose moral was "Do give me another lump of sugar." To return, however, to my evening reception. When it became publicly known by the Court Circular of Zachly that I was actually going to bed, the anxiety of my female friends to inspect the mysteries of an English toilet became overpowering. One pretty girl pushed in resolutely through the slit with an offering of some raw carrots as a pleasing evening refreshment, and then a dozen followed. "Là, là! Emshi! emshi! salaam." (No, no! Go away. Peace be with you!) It was of no sort of use. How did I comb and brush my hair? Was it as long as theirs! What were the garments of "*Angliss*"? The thirst for useless knowledge for a long time overcame all other considerations till a vast amount of kissing had been performed on my hands and cheeks; and finally, with many a soft word and bright smile, the pretty creatures took wing like a flock of pigeons.

It rained that night and in the morning. Every thing was damp in my tent, and the departure in the cold gray dawn was any thing but pleasant, save for the kindly good-by of the Maronites, quite astonished apparently at the receipt of a moderate *backsheesh* in return for their hospitality. I saw them again on my homeward journey, and there obtained lodgings in the house of Helena, the weather being terribly cold for tents. On that occasion I saw more of their simple patriarchal life, watched the baking of their miserable bread, (mere meal pancakes toasted for one minute in a red-hot earthen jar,) and accompanied them to their vesper service in their own little chapel. As the sun went down over Lebanon the bell rang for prayers. We had only a few yards to walk to their small church, which seemed to be a sort of chapel-of-ease to the larger one a mile off in the center of Zachly. Imagine not, O reader! that it is to a Bath or Cheltenham chapel-of-ease to which I was conducted, wherein to sit in a crimson-cushioned pew, "under the Rev. Mr. So-and-so." A quadrangle of mud walls, brown without and whitewashed within, a flat roof of branches and mortar, a post for support in the center, a confessional at one side, a little lectern, an altar without crucifix, and only decorated by two candlesticks, a jar of fresh daffodils, some

poor prints, and a blue tea-cup for sacramental plate, a little cottage-window into which the setting sun was shining softly; such was the chapel of Zachly. A few men knelt to the left, a few women to the right; in front of the altar was a group of children, also kneeling, and waiting to take their part in the service. At the lectern stood the noble figure of young Papas Salieh leaning on one of the crutches which in all Eastern churches are provided to relieve the fatigue of the attendants, who, like Abraham, "worship leaning on the top of a staff." Beside the Papas, stood a ragged but intelligent little acolyte, who chanted very well, and on the other side of the lectern was an aged peasant, who also took his part. The prayers were of course unintelligible to me, being in Arabic; but I recognized in the Gospel the chapter of genealogies in Luke, over whose hard names the priest helped his friend quite unaffectedly. The reading over, Papas Salieh took off his black and red cap, and kneeling before the altar, commenced another chanted prayer, while the women beside me bowed till they kissed the ground in Eastern prostration, beating their breasts so as quite to startle me. The group of children made the responses at intervals, and then the priest blessed us, and the simple service was over, having occupied about twenty minutes. While we were departing, the Papas seated himself in the confessional, and a man went immediately into the penitent's place beside him. There was something very affecting to me in this poor little church of clay, with its humble efforts at cleanliness, and flowers, and music, all built and adorned by the worshipers' own hands, and served by the young peasant priest, doubtless the son and brother of some of his own flock.

[These recollections were written originally in Greece, immediately after the little scenes to which they refer. As I prepare them now for the press, it is with a pang I retrace the memory of that innocent village, the gentle playful groups that gathered round me, the church where the stranger's heart ascended with theirs to the common Father of all, the humble cottage where I slept that last night, welcomed so kindly to the little room abandoned for my use, and left to rest with such soft kisses on my hands, and wishes for God's "peace" upon me. Alas! alas!

Zachly is now a heap of blackened ruins! the cottage, the church, are doubtless crumbled to the ground, and the poor, humble people! Heaven grant they may have escaped when the savage Druses overwhelmed their village; and that the sweet, motherly Helena, and her dear little children, and those bright girls, and Salieh, and the rest, may not have moistened with their blood the spot where I saw them so peaceful and so happy. At the best, the condition of the Maronite fugitives is miserable to contemplate.]

After leaving Zachly, I had to ride six hours before reaching Baalbec. The plain was dreary, and the wind piercingly cold; but Baalbec was before me, and I could hardly master my impatience, as I knew myself to be approaching the ruins with which I had always associated a mystery and a majesty beyond all others in the world. The very name of Baalbec for years back had stirred up in me all wildest imaginings of the sublime and the wonderful, and here I was within an hour of beholding it all. Was it *I* in truth? Was that chain Lebanon, and that other mighty range before me Anti-Lebanon? and did the huge walls actually rise between me and that black hill to which Hassan was pointing? At last it came.

"Signora! Ecco Baalbec!"

A small rise in the plain had enabled us to see it some four miles off, a great block of castellated masonry, (the Saracenic walls,) out of which rose clearly, even at that distance, the six columns of the great Temple of the Sun, which still "stand sublime,"

Casting their shadows from on high,
Like dials which the wizard Time
Had raised to count his ages by.

My heart beat with the pleasure we can only feel a few times in a life, and we sped onward as fast as our Syrian steeds would bear us. About two miles from the city itself, I was suddenly attracted by a singular building. It consisted of eight columns of beautiful polished red granite, but divested of their capitals, and surmounted by only a rude architrave of plain stones so as to form an octagon. One intercolumniation was filled by the usual Moslem niche, indicating the direction of the Kaaba. It was clear this was one of the common pieces of Arab architecture, wherein they plundered the materials of other temples

to erect mosques for themselves. There is something in this practice curiously akin to certain moral thievings and borrowings in their own and other sects. Mohammed himself had made of the *traditional* part of the creed of Arabia a mere patchwork, stolen from Jews and Christians. In our time there are modern sects and churches which are constantly robbing from earlier faiths their prayers and rituals, maiming, and displacing, and barbarously building them into new forms, just as the Arabs did the blocks out of the temples of their predecessors. Surely such practices must ever mark the absence of the true inspiration alike of art and of religious sentiment. It is at best a dead and negative creed which does not blossom out spontaneously in its own appropriate cultus of prayer and praise; and with proper time and opportunity in all the forms of Art—architecture, and poetry, and painting, and music. I have heard a grand old liturgy mutilated and "improved" to suit the advanced theology of a people, till every feeling was pained as by false variations on some dear old tune, and after it the prayer of the preacher himself, poured out warm from his living heart full of love and faith, seemed as if it belonged to another age than that of the liturgy! It was as if one beheld growing together the luxuriant beech and chestnuts of our time, and the stern, dark old pines of the era of the coal measures! The reformers of the world, it would seem, ought to proceed in a far different way. Surely they should take the *spirit* of all that in the past is true and holy, and leave the mere formal blocks of myth and cultus to lie where they have fallen; never despised, never desecrated, only disused; visited and studied with a sacred and tender interest, but not forced into unnatural service. We should follow the example of the Crusaders who saw the fanes of Cairo, and carried the idea of their grandeur into their own lands and their own faith, and built Rouen, and York, and Strasbourg, and Milan, with the arches of the Gama Taloon, and the mosque of Hassan.*

Another half-hour, and I was in the promised "locanda," in the village of Baalbac—a large collection of mud cabins of the humblest sort, lying at some little distance from the ruins. My "apart-

* Both erected several centuries before the pointed arch was used in Christendom.

ment" was a separate cabin, consisting of one large whitewashed room, with a post in the middle, and two vast apertures in the wall, scarcely to be called "windows," inasmuch as they were wholly "without form and void," so far as shape or window-frames were concerned. Hardly had I time to dismount and walk in, when a clean mat was thrown on the floor, and then a cotton mattress and a large pile of cushions, while a great hot "tandour" of charcoal was brought from an adjoining house and placed beside me. The luxury I felt in resting my stiffened and frozen limbs thus comfortably, made me draw an unfavorable comparison between chairs and divans, and also between fireplaces in our hotels, which take an hour before they *begin* to smoke, and the charcoal-pans of the South, which can be carried about ready lighted.

A little warmed and restored, I took the master of the locanda to show me the way about the ruins, and then directed him to leave me in peace till dark. Wonderful hours they were, that day and a large part of the next, alone in that City of the Dead! The principal buildings remaining of the once vast town are all inclosed by a lofty and massive Saracenic wall, composed, as usual, of fragments of other buildings, and encircling a space of three or four acres, which formed in the days of the Arab power a stronghold or citadel. Round this wall flows a lovely, bright brook, singing and dancing like a merry child beside a blind and desolate old man. Entering through a breach of rather difficult access in the south-west angle of the wall, the whole majestic spectacle of temples and palaces rose before me; and, when I had dismissed my guide, I had the full, intense enjoyment of them all to myself. There is naturally nothing to attract the poor inhabitants of the village half a mile off into these precincts; and if there *were*, the fear of the Djinns which haunt them seems to be so overpowering that it would be a sufficient restraint. Thus, in all the solemnity of utter solitude, without one other human being near, and a thousand miles from all who knew or loved me, I drank in through the long, silent hours the majestic grandeur of Baalbec.

I shall not attempt to give a description, a catalogue of temples and palaces in that wondrous place, with technical phrases and accurate measurements. He

who desires such information will find it in a multitude of books. When all is said and done, and temples are described as "peripteral" or in "antia," octastyle or hexastyle, with columns, Doric or Corinthian, six feet and a half by sixty, or five feet by forty, no very lucid idea is conveyed to the mind, or if it *be*, it is of that species of lucidity which effectually expels the sublime, as when we contemplate a line of poetry in the point of view of the trochees and dactyls of which it is composed. Let me try if I can possibly convey more justly the impression which Baalbec made on my heart, overwhelming me, as it were, under a sense of desolation no other spot on earth ever conveyed.

Baalbec possesses two characters peculiarly its own—enormous magnitude and redundant richness. The buildings are not only of immense height and extent, but each individual block is of dimensions almost unexampled elsewhere. Five spans of my extended arms and some three feet over (thirty-one feet) only touched the extremities of one stone in the temple of Baal. The shafts of the pillars, standing and prostrate, are each miracles of size and perfection; the fragments of palaces reveal halls of a magnificence unparalleled. Then all these enormous blocks and edifices are wrought with such lavish luxuriance of imagination, such incredible perfection of detail, that the idea of the Arabs that they were the work not of men but of genii, seemed perfectly natural. I wandered on, now reveling in beauty, now overawed with grandeur, till it seemed as if one's soul and heart could bear no more. Here were the towering six columns of the giant fane of the sun; here the second temple, the most magnificent, the most perfect left to us of the ancient world. Passing out at the great ruined gateway, here are the vast and splendid square and hexagonal courts, with their walls forming *exedrae*, and loaded with indescribable profusion of ornaments, columns, pilasters, entablatures, niches, and seats overhung with garlands and sculptured wings of fanciful creatures. All that the richest of the styles of ancient architecture could achieve—the magnificent Corinthian in its most luscious dreams—seems perfected here. Streets and gateways and palaces, hardly distinguishable in their decay, yet all on the same scale of grandeur and solidity,

follow on beyond the courts and portico. One huge house stands with its ruined staircase, like a great tower, in the center; another, half underground, contains a vast stone hall, yet roofed and perfect. Further yet is the most splendid of all the palaces: noble Corinthian doorways and windows, and exquisite cornices and ornaments of broken entablatures, attest its surprising richness. I climbed up a shattered stair to the summit of the Saracenic wall which here bounds the ruined city; and there below, through an opening in the massive masonry, lay the *living* world—the glittering brook, a group of almond trees in blossom, the village, the beautiful mosque, and Anti-Lebanon with his crown of snow. It was a sort of shock to look out on the world of the living from the city of the dead, so completely do these ruins engross our souls. Only beyond the almond trees was one vestige more of the elder city—an exquisite circular temple, with its colonnade of six Corinthian columns, and the architraves recurved inward from column to column—one of the loveliest gems of ancient architecture. The second day of my visit I went to see this temple, and also the Saracenic mosque, built as usual of pillars taken from other temples, and arranged like that of Mecca round a large quadrangle, double on three sides, and quadruple on that next the Kaaba. From the capitals of the pillars spring pointed arches of very elegant form. The roof which they supported is all fallen down; the grand marble fountain in the center of the mosque is all broken and shattered, and the roots of the great plane-tree which overshadows it are breaking up the beautiful pavement. What double desolation is here—the fragments of heathen shrines built into this once stately fane of Islam, and then, when both races of worshippers have passed away, ruin left to work his will. Truly, I thought,

“Our little systems have their day,
They have their day and cease to be;
They are but broken lights from Thee,
And Thou, O Lord! art more than they!”

Walking up the valley, I came to a different scene—the source of the lonely little brook which sings forever round desolate Baalbec. There are here ruins of splendid Moslem palaces and white marble fountains standing in the soft, green grass and crystal water. Luxuriant

weeping-willows hang over the stream. Every thing here is calm, soft, and sweet; lonely and sad, indeed, and yet most beautiful. Over the willow-branches hung masses of mistletoe, which I gathered with the thought how strange it was that we, whose progenitors had revered that plant when Baalbec was in its glory, should find it living here now when Baalbec is dead, and we, the children of the barbarians, are the “heirs of all the ages, in the foremost files of Time.” A beautiful emblem truly was the mistletoe growing on our royal English oaks: the oak was *Hesus*, “the God, greatest and best,” strongest and ever-during; and the mistletoe was *Man*, weak and poor, but living in him, and clinging to his everlasting arms.

I saw these Moslem ruins, however, only on my second day in Baalbec; the first was all spent alone in the City of the Dead. I turned away from the view of the outer world, and descending the walls, explored yet further into the ruins beyond what my guide had indicated—the most awful part of all, the huge subterranean vaults which underlie half the city. The meaning of these extraordinary places I can not pretend to surmise. They are too dark for roads, and far too splendid for cloacæ. Most of them are built of stones about six feet high, (admirably hewn, like every thing in Baalbec,) two ranges forming the walls. Upon these rests a projecting cornice of massive stone, and from this springs the lofty rounded arch of the vaults. At intervals of about twenty yards, there are carved in high relief on the keystones of the arch half-figures of Astarte, or some other female goddess, gazing down with strange, solemn looks on the intruder in those twilight realms. It is impossible to imagine any thing more awful than these vast sepulchral corridors, into which the daylight only enters glimmering from the half-underground openings at the end of such of them as emerge at all into the upper air. Several of them are at right angles to these, crossing from one to another at some hundred yards from the entrance. In one of them I saw, high up in the second range of stones, an opening leading into an abyss of darkness. Another magnificent portal, carved in all the Corinthian richness of decoration, led me into what seemed a loftier, vaster vault than the others. I pursued it a dozen paces in the utter darkness, but who would dare go

on? The dead silence, the thick darkness, and oppressive air of these sepulchral vaults—sepulchers, it might be, under a Dead City—are wholly indescribable in their awe. I wandered from one to another, and entered, as I could bear, through doors which seemed like portals of Dante's Hell; till the sense of awe became almost horror, and I could endure no more.

Last of all, I returned to the Temple of Baal to spend there the closing hours of the evening. Prints and sketches must have made most readers acquainted with this sublime building, its huge walls still perfect, its colonnade of enormous pillars still half standing, and its inner portal of unapproachable magnificence, with its broken architrave and keystone hanging fallen half-way from its place. The broad lintel itself bears a beautiful bass-relief of an eagle armed with a thunderbolt, hovering, as it would seem, over the head of the entering worshiper. The view of the interior of the temple from this doorway is probably the finest remaining of any of the ancient world. The roof is utterly gone, (it is supposed to have been hypæthral,) but the walls stand nearly perfect to their full height, and the ranges of columns and pilasters with which they are faced, retain all their beauty. Even the place where the statue of the god must have stood can easily be traced. A great stone lying overturned on the spot was probably its pedestal. It always takes time for the effect of *grandeur* to sink into our minds. *Beauty* we discern at a glance, though its power does not fail also to grow and strengthen. But the immensity of a building or a mountain does not reveal itself till our eyes have as it were learned the perspective of its magnitude, as a child first learns to see. The solemnity and desolation of great ruins must be seen calmly and alone to arrive at any sense of their sublimity. It was a boon to be alone in Baalbec. The stillness and the calm were most impressive. I remained for hours in the glorious

fane so strangely my own, and tried to conceive what had been the thoughts of the worshipers when last the incense had risen from those broken altars to the mysterious Baal. Had any prayers to which *we* could respond ever ascended there? Who knows how much light ever broke into the temples of ancient heathendom? Perchance even the most polluted of all had some opening to heaven found by the eyes which sought it faithfully. Said not old Scotus well: "Surely the divine clemency suffereth not the souls which seek earnestly for God to wander forever in the mists of error, and be lost therein?" It seemed to me as if the holy depths of those Syrian heavens in which the calm moon was now shining over the broken walls, must have received from all time the prayerful gaze of human eyes. Perhaps from many a heart had there ascended aspirations like those dimly breathed through the wonderful Hymn of Cleanthes to Zeus—a prayer which even our happier souls, rich with the spiritual treasures of two thousand years, might not err to offer now.

"O Thou who o'er the clouds dost dwell!
Our wild and wandering wishes quell.
Direct each will, each thought control,
Light the dread darkness of the soul.
That our wills, blended into thine—
Concurrent in the law divine,
Eternal, universal, just, and good—
Honoring and honored in our servitude,
Creation's psæan march may swell;
The march of law immutable,
Whereby as to its noblest end
All being doth forever tend."

Does not the deepest and noblest of all modern poems, the last word of our philosophy, breathe the self-same faith and hope in God and his law, and its great final fulfillment?

"That God who ever lives and loves,
One God, one law, one element,
And one far-off, divine event
To which the whole creation moves!"
FRANCES P. CORBR.

From the London Eclectic.

DINNER-TABLES AND TABLE-TALKERS.*

THESE two volumes suggest to us the picture of dining-tables, not only with what is on them, but with those who are round them. The first comprises many of the most affecting experiences of a diner-out. We presume the writer of these immortal truths is a *man*, if so, a man how interesting! "Melancholy marks him for her own." Like many of the choicest teachings of the age, this book is the result of deep and acute suffering. Our author reflects upon the deplorable delinquencies of the times in the department of gastronomy. He says: "Among the whole tribe of women called cooks, there are not ten worthy of their salt." This is a very harsh judgment upon the corporation of cooks; but still more solemn is the charge brought home to the womanhood of our land. Our author says, "that *ladies* educated in the superficial places called boarding-schools, are taught to believe that the *art of cookery, which is their first and paramount duty*, is a degrading occupation." A statement like this awakens a thrill of horror in one's breast. To think for a moment that the sex has so fearfully forgotten its first responsibilities! The unhappy man has not only lost all faith in cookery, he has lost all faith in human nature. We have the following sad account of a dinner-party:

"There was also put on the table six silver side-dishes, containing—God and the cook only knew. Then there came the eternal boiled fowls and bill-sticker's paste. I forget what was at the other end of the table, but in the middle was a horse's tongue."

Upon which entertaining little meal we have also the following note:

"There is not a horse that dies in London, or within reach of it, that the tongue is not pickled and dried and sold as a Russian rarity."

* *Dinners and Dinner-Parties*. Chapman & Hall.

Lives of Wits and Humorists. By JOHN TIMBS, F.S.A. Two volumes. Richard Bentley.

The Rhetoric of Conversation. Richard Bentley.

The unhappy man says, he seldom goes out to dinner without the impression that the meal has driven a dozen nails into his coffin:

"In most places these impostor dinner-givers begin by calling on the Deity to sanctify the filth they place upon the table, and end by turning up the whites of their eyes, calling upon the Lord to make them truly thankful for the stuff they have received."

The author of this book has been invited to the most remarkable parties, and he sketches, in quite a remarkable manner, the people he says sure to be met with at an every-day English dinner:

"At these sort of dinners you are sure to meet great people. You are sure to meet some great person that has kept the party waiting for an hour, who announces his arrival by a thundering knock of half an hour's duration. You find his greatness in his make-up—his shiny black sticking-plaster boots, his false hair, his false whiskers, his false every thing. Most probably you may meet some noodle who has been knighted by mistake, or for services that nobody ever heard of, whilst governor of some uninhabited island, the Secretary for the Colonies thinking it the cheapest way of getting rid of him. He belongs to a club, which he is continually talking about, and sleeps in some street at the back of the Haymarket. And more than likely you may meet with some German baron, from Saxe-something, who was invited because he was once at the Queen's concert, of which he never forgets to talk; and the hostess and her daughters think it so very grand, and connects them with the aristocracy. Probably you may meet some person who has put up a drinking-fountain, who, in his humility, has not forgotten to emblazon it with his name and address at full length. As certain as eggs are eggs, you meet one of the six hundred and fifty-six that congregate at Westminster: and lucky if you don't meet two of them, who, to show their importance, and that they belong to the Legislature, begin by talk of the House and the lobby, and then get up the usual cross fire: the one will say how he received a deputation from the doctors and scavengers of Brighton, claiming vested rights to all the cesspools; and the other will describe how Lord Palmerston held him by the button-hole, and told him that a strong mixture of sewage and sea-water

was highly beneficial, and exemplified his arguments by saying that maggots were always found in good cheese, that flies invariably hover over a muck-heap, and that accounted for the swarms of Israelites at Brighton and other watering-places. As to females, you are sure to meet some fourth or fifth-rate women, pictures of awkwardness and ugliness, who had been to court, but who had no more right there than the animals they dignify by the name of cook, and like the flies in amber, set some people wondering how they got there. To a certainty, you meet stuck-up nobodies, that try to talk fine; they use large words to express small ideas. On one occasion the author heard a lady say 'she could never depend on the integrity of her stomach.' These carrion, in general, live in obscure lodgings; if they hear mention made of a mutton-chop, express an affected oblivious doubt of its meaning, and, in a patronizing way, suppose that it is a mutton oôtelette."

This is the spirit in which this book is written. We have felt a rich enjoyment while reading the bilious rubbish, that our world was altogether a narrower one. We have felt happy in the thought that, as far as possible, we know what we eat and with whom we eat. We have also thought that to place upon the table the chiefest of dainties, and to place round the table the most fashionable group of persons, is not all. Conversation is the salt and sauce of society, without which, any dinner-table must be flat and tame indeed. Yet some persons are wholly insensible to all the charms of the table. Our readers remember the story of the Duke's cook. The Duke, for especial occasion, desired the first *chef* in Europe. Lord Seaford parted with him, on economical grounds. He came back; he would serve Lord Seaford, he said, for no wages at all, rather than remain at Apsley House. "Has the Duke found fault?" "Oh! no, oh! no. But he hurts my feelings, my lord. Oh! he hurts my feelings. I serve him a dinner that would make Ude or Francatelli burst with envy, he says nothing! and I go out and leave him to dine on a dinner badly dressed by the cook-maid, and he says nothing! It hurts my feelings, my lord." Yes, even the *artistes* of the kitchen have their emotions and desire our praise. But the power to praise depends on abandonment to the table. We are told that talk should only be the sauce between the courses. That great teacher, Thackeray, when partaking of a *matelote* of surpassing excellence exclaimed: "Now, my dear fellow, don't let us speak a word till we've finish-

ed this dish." That distinguished and illustrious man has a reputation not only for fiction but for cookery, and has discovered that a slight infusion of crab is a decided improvement to curry; gifted being! shining alike in both realms of taste.

So sadly in this world do the times, and manners, and usages of men change, that it is possible we may be writing for some who have never heard any mention even of that great institution in which was once enshrined the wit and the humor, the national good nature and mirth of the age in England. We allude to the immortal Beef-Steak Club. That illustrious society was formed in a most interesting period of our country's annals. We believe the gridiron of 1735 is still in existence, and is to that fraternity what the lion, or the rouge dragon, or the Clamencieux are to the heraldic pride of our aristocracy. We believe, we say, that real gridiron is still in existence—a touching memory of the days of old. That eloquent symbol was engraven on the hearts and on the buttons of every member of the club, encircled by that eloquent motto, "Beef and Liberty"—venerable institution! The beef was regarded as the grosser ligament, holding as in a sacred bond of unity, the fraternity. Thus ever seems it that the soul within us can only be kept alive by the thought of the table, and we need the grossness of the appetite to kindle the play of fancy, of feeling, or of fun.

In fact, there seems to be no doubt about it, if we may say, without being misconceived in these days of misconception, to dine is the chief end of man. To this grand test of our social standing all our cares and arrangements lead—the honeymoon over, the connubial doves all sent to roost—the mistress and the wife settled in her new domain—to what do all her energies tend? To the preparation of dinner. We grant that the milliners and mantua-makers are interesting, but they are personal, and how could the performances of those distinguished artists be exhibited without a dinner? Then the husband, how can his wandering and violate affections be enchained but by clever contrivances for a dinner? Nay, how can social position be known, but by dinners? This is our national demonstration of affection. We can not go beyond this—from the Prime Minister, or the Lord Chancellor, to the Town Councilor; from

the dinner at Mivart's, so elegant and *recherché*, to the dinner at the well-known sign of the "Frying-pan and Pot of Porter," where beef-steaks and tripe fritters regale the savory taste, this is our greatest national institution.

There is a kind of literature which may be called, we think, the literature of the dinner-table. It is the chronicle of the diners-out of society. Ah! there are many high-priests of that profession; they live from table to table; the best-furnished tables of the land—tables thronged by the most illustrious personages; they are sought with avidity by all the noblest and loftiest personages, and not Spurgeon himself could more attentively study his pocket-book to note the engagements of a life of intense exertion and popularity, than do these contrive to edge in two or three parties for one evening. We see this in the life of Thomas Moore. What other life he led we are not told. His biography is one long dining-table; there is nothing heard but the crack of champagne-corks, and every thing seen is beheld by the light of wax candles; visions of blazing plate, and of liveried footmen, rise constantly to the eye, while it must be admitted a wonderful succession of good stories is shot off, and witty and funny things circulate round the tables as rapidly as the glass. The first reflection one makes after reading all this is, what an immense monotony! what a severe bore it must be to live so—never, apparently, to know quiet or repose, and we do not see that there is any thing in Moore's writing to lead to the thought that he ever got beyond the dining-room side of human life. Doubtless it must be very entertaining and instructive, occasionally to see life in the mansion and the palace; but not to find *in one* a home only to go gadding about *from* palace to palace. What weariness like that! Why, those men look to us like the ancient Zany, at the table of the great, decorated in cap and bells:

"Vanity Fair! Vanity fair!
Pray can you tell me who'll be there?
Simper, and Prateapace, Brazen Stare,
They'll be there! they'll be there."

Such tables justify George Selwyn's ejaculative soliloquy between the courses, "O dear! how many toads have been eaten off these plates;" while again, three fourths of the conversation would

do for the *School of Scandal*, and sometimes might indeed bring into near light Sydney Smith's description of a dinner at Samuel Rogers's, when the candelabra were hung rather high: "It's all light above, and darkness and gnashing of teeth below."

Thus we see that some men belong essentially to Vanity Fair—to such men "all is vanity and vexation of spirit." Such people find all life to be a mere lispng sentiment; life is to them a bottle of eau de cologne, and if by any chance the bottle is upset, they instantly assail the very moral government of God. Such people contrive to get through life with "a little illness and a great deal of complaint;" "they are obstinate about a hash, and arbitrary about an oyster, and their tempers spare neither man nor beast in the east wind of their selfishness." So they have just enough of character to amount to "obstinacy—that virtue of little minds." And one of the great mistakes still is the reading of the whole of the human race from our own view of it. What! is there no heroism because our friend, "Captain Costigan was not only brave, but knew it, and liked to take out his courage and give it an airing, as it were, in company"? Are there no excellencies because "Mr. Earwig is so keenly alive to the frailties of his fellow-creatures—like the man who thought it a greater proof of philosophy to discover the spots on the sun, than the laws which regulate the sun itself"? Are there no noble women because you see some Lady M'Flirt "flitting about like a butterfly in a dark lantern"? No! it shall not be decided so. The great mistake in Vanity Fair ever has been the attempting to satisfy this immortal being with the husks that the swine do eat, or decorating the body with the paste diamonds of ambitious gentility—the perishable. We confess, to us, one of the most sadly sorrowful of all sights is to behold the brave Sir Walter Scott spending his health, his brain, his mighty and magnificent soul, in order that he might take his rank with the feudal lords of the land. We believe it is a matter of very old dispute and discussion, whether it is better to possess a paradise, in order that we may have the wherewith to dream of cabbages, or to confine ourselves to the bed of cabbages in order that we may dream of paradise. We all know Mr. Treakle, who only cares

for wealth that he may enlarge his bed of cabbages; he has no thought of wealth as a means to taste, to religion, or to benevolence. It was given to us the other day to call on a friend, certainly not rich, but comparatively poor; he was only able to do one of two things, either adorn his walls with pictures containing divine ideas, suggestions to arouse and to inspire his love, or to adorn his floor with a carpet. He adorned his walls with pictures, and did not buy the carpet, and he has never been thought well of since in Vanity Fair. In low life, in Vanity Fair, we have known people deny themselves of comforts for a month that they might have some great gala which should last for two or three hours. But I have also known men deny themselves food that they might purchase books which should open new worlds to the soul, and they can not understand such things in Vanity Fair. It is impossible to resist some such thoughts as these while we think of dinner-tables and diners-out.

Among the traditions which have lingered longest in the south of France is one—that once upon a time a man desired to know how he might obtain pleasure, wealth, and power, and he was told that in a certain pass of the mountains of the Pyrenees was a *saffron-yellow fly*, which he must catch if he would obtain wealth and power. The saffron-yellow fly was to be caught in a net *made of the hairs nearest to the brain, which was to be dipped in sweat and blood*. The seeker went to the mountain-pass and sought, and he saw the saffron-yellow fly, and he chased it for many days and nights over rock, and ravine, and thicket, and wood; his clothes were torn, his flesh was torn, but still he followed the fly. To his immense chagrin, he saw it settle on the roof of a shepherd's hut, and vain were all his efforts to dislodge it. Disappointed and mortified to find a shepherd so blessed, he set fire to the shepherd's hut, and the hut burnt down, the fly flew away, and the unfortunate seeker began his quest again. His quest was unsuccessful; but, at last, he saw a young plowboy catch the saffron-yellow fly in his cap. The seeker was frantic; he seized a stick and killed the boy. He then indeed caught the saffron-yellow fly; but the fly stung him, and made him sad for the remainder of his days. He was

very rich and very powerful; but he languished until he died a lingering death. A fatal pursuit is that of the saffron-yellow fly.

There are two methods by which we obtain an entrance to men through what may be called the side-doors of their character. The one is by letters, confessions, and journals; the other is by their table-talk. Those who excel in the one seldom excel in the other; yet the qualities demanded for the first do not always unfit for the last. Usually, however, the table-talker keeps little in reserve among the elements of his character; while, on the contrary, our interest in the confessions, and journals, and diaries of men, if they have a deeper tone in their character, entirely depends upon their reserve to all others, and our reliance upon the confidential utterances to the paper. The table has been supposed to be the place where the man may be seen as he is indeed; and sometimes it has been thought the very last place where we could dispense with the conversation which brightens and adorns. Diogenes, we know, when invited to a great table, glanced over the whole array of dainties, and then rose and left the company, exclaiming in his rustic way, in allusion to the dainties and delicacies and wines: "What a number of things there are in the world Diogenes can do without!" Thus Plutarch, in his *Banquet of the Seven Wise Men*, says: "Wise men may dispense with many things rather than the wisdom; do men come together merely to fill themselves as we fill bottles? for if the food be not good, it may be left—and if the wine be not good, we may drink water: but for a shallow and impertinent fellow you can not escape him, he mars all mirth." Sometimes, indeed, there is no escape on shipboard, or on a railway; but who would voluntarily stay to hear the discourse of a Pumblechook or a Wopsle, merely because they happened to be rich, or to be able to spread a table with services of silver and of gold, to press into their glasses the vintages of the world, or to please the palate with the most delicate *entrées*? There is not a worse sign for the moral health of a nation, for its robustness and its wisdom, than the departure from simple tastes in food; it accompanies the departure from simple tastes in truth and in morals. Occasionally, the conversation at the tables

of the great would seem to be not of an edifying or delicate description. Thus we read in the work we have already *Dinners and Dinner-Parties* quoted on the following touching incident :

"The author was present with a young lady who had been educated in the usual nonsense, when the footman entered and asked her mother if he could say a word to her in private; the mother answered that she wished no secrets, and desired him to speak out; hesitating, she bid him to say what he had to say. He replied: 'I think it right to tell you, ma'am, that cook was drunk last night, and, in pouring out the soup from the saucepan into the tureen, was ill, and before she could turn her head away from it, part of her illness went into the tureen.' Cook was immediately called up, but, of course, the brute stoutly denied it. However, there was no doubt of the fact; the footman said he did not like to disturb the party, so he wiped the edge of the tureen, and gave the soup a good stir. The lady, in great anguish, exclaimed: 'Good heavens! I ate some of it!' and, being highly indignant, was not very gentle either to William for stirring the soup, or the cook for her addition to it. The young lady listlessly exclaimed: 'I ate some of it! but what a fuss you are making, mamma! You know we must all eat a peck of dirt before we die.' This young woman had received a college education, and was finished at Brighton at £200 a year, besides extras."

We have heard a great deal about the desirability of knowing all the little details of a great man's life. In modern biography that idea and necessity has fairly run to seed; and in Moore's life this foible of biography has reached the last extreme. And yet, what a man chooses to set down about himself does greatly illustrate the character of his life and his mental habits. What were the emotions of a great man while being shaved? What reflections agitated the mind when deprived of appetite? What disappointment harrowed the soul when it found itself obliged to contemplate a dinner of mutton instead of venison? To chronicle the change of a necktie, or the loss of a pocket handkerchief; to register a sigh over the departure of a favorite cook; to hail the advent of green-peas. It may be our weakness, but we have not thought it very essential to our conception of a great man to be made acquainted with these interesting particulars of his life; yet it is a fact that, for the benefit of future ages, these particulars are placed on record in the voluminous life of Thomas Moore. We find such import-

ant particulars as these: "Oct. 15th, 1825; Bowles brought me back as far as Buckmill, where I eat a couple of cutlets and walked home. Sept. 8th; eat ice at the Milles Collonnes. 9th; eat ice at the Milles Collonnes. 10th; eat an ice at Tortoni's. 16th; took an ice with Lord John at Rachises." In December, 1823, occurs an important entry: "Asked the Phipps's to dinner, as Power had brought fish and oysters." "Dec. 5th; the Phipps's again dine with us to finish the fish." "Sept. 17th; called at Power's on my way to Shoe Lane, and felt such a *sinking in the stomach* that I stopped to dine with him." Then, in another page, we are informed, in his journal, of an affecting event. He says, on January 1st, 1823: "The coat (a Kilkenny uniform) which I sent to town to be new-lined for the fancy-ball to-morrow night, not yet arrived." And, on the following day, this: "Obliged to make shift for to-night by transferring the cut-steel buttons from my dress-coat to a black one, and having it lined with white silk." It may be from our own inaptitude and want of perception; but we are quite unable to perceive that future generations will be materially benefited by such records as these; and, in truth, we can not be expected to hold any man very high in honor who condescends to make such notes as these.

There is no slight notice of him that escapes the Argus-eye of his vanity. He drank all notices of himself as a dram; and he not only became intoxicated by the repeated dose, but he may be said to have been constantly suffering from the delirium tremens of his vanity. "There was a flourishing speech of Shiel's about me in the Irish papers; he says: '*I am the first poet of the day, and join the beauty of the bird of paradise plumes to the strength of the eagle's wing.*'" He goes to a fancy ball, and he only remembers one thing: "There was an allusion to me as Erin's matchless son; which brought down *thunders of applause and stares on me.*" He visited Ireland with the Marquis of Lansdowne. He records an extract from a newspaper: "We observed Thomas Moore, of poetical celebrity, leaning on the arm of the Marquis of Lansdowne." He is invited to attend a meeting, which he declined; finds, however, that Lord John, Brougham, and Mackintosh went, and he records his "regret

now that I lost the opportunity." He went to a Roman Catholic chapel: "Coming out, a great number of people in the yard assembled to *see me*. In the narrow passage leading into the street, a man nearly pushed me down; asking me, at the same time — 'Which way has he gone?'" "Miss Rogers was particularly agreeable. She mentioned that she had a letter from a friend in Germany, saying the Germans were learning English in order to read — who? Milton, Shakespeare? No — Lord Byron *and me*." These are the records; and they are illustrative of a life. In this way he was constantly engaged in administering to his love of approbation, as must be ever the case in such matters, at the expense of self-respect; for it must always be that in the proportion in which we indulge our vanity, we diminish the proper and necessary amount of nobility of character and pride.

And thus we are always reminded of our friend's interest in himself. To select the stories of the vanity of Moore would make a chronicle *too* spiteful and malicious. Moore, it has been said, reminds us in every page of what Johnson said of Richardson: "That fellow could not be contented to sail down the stream of reputation without longing to taste the froth from every stroke of the oar;" he was always inventing expedients to tickle himself—and every page abounds in such ridiculous evidences. His self-importance is ridiculous. Once, at an assembly at Devonshire House, "the Duke," he says, "in coming to the door to meet the Duke of Wellington, near whom I stood, turned aside first to shake hands with *me*, though the great captain's hand was ready stretched out." He sees Sir Astley Cooper, and records "how the illustrious surgeon apologized for giving such a man *as me* the trouble to come to him."

Vanity is always the index-figure of a very small dial. Why? Because perpetual watchfulness over our own powers shows the narrowness of their dimensions. A vainer writer than Moore, I believe, it would be impossible to find; we can not draw any distinction in his case, as we do in some instances, between egotism and egoism, between the dwelling on self-evolvement and development, and the dwelling on the petty details, the then court dress of the body, and the sensation which it created, with its velvet coat and

steel buttons. Wordsworth was an egoist. He was an object of profound interest to himself, but it was his soul that was interesting; and if he rejoiced in fame, it was delight to find his thoughts acting upon and influencing the thoughts of other men. It is very ludicrous, laughable to a degree, to find the great poet interested in his velvet coat and steel buttons. This is the record of one of our great diners-out — the life of Thomas Moore, by Earl Russell, is the most remarkable modern contribution to the literature of the dining-table. We have already said, from page to page we are conducted through one long series of dining-rooms and tables. It is a fine collection of the *Ana* of Vanity Fair. On some occasions, the illustrious Epicurean found all his friends out. He records, in one affecting page, how he wandered from street to street, in London, from house to house, finding all his friends out; he was obliged to dine by himself alone at an inn, reflecting upon his painful likeness to the lines of Dean Swift:

"On rainy days alone I dine,
Upon my chick and pint of wine;
On rainy days I dine alone,
And pick my chicken to the bone."

A man is known by the company he keeps; his tastes reveal him. Moore determined to keep the company of the great; he determined to pass his life and time among the titled and the noble. There are those who would rather be snubbed by a prince than honored by a peasant. It is very easy to see that the difference was great between Moore's actual and apparent circumstances. They are the curse of life and of the world, these appearances, "our Social Fates," as Helps calls them. Some of our readers remember, possibly, the translation from the Greek Anthology:

"A dealer in cabbage and rue,
Oh! Stephanus once was his name;
But as soon as so purse-proud he grew,
Philostephanus then he became.

Five letters have swollen out that name
And his pride may come to this pass;
That soon he may alter the same,
To *Hippocratippidias*.

Yet though should he call himself even
Dionysiopeganodorus,
In his *Ædileship's* book he is plain Stephen,
Now strutting so stately before us."

We are afraid there was this constant *effort to appear*. In this, Moore was only one of the thousands—the millions—who are constantly edging their way—elbowing and nudging their way through the crowd to the best booth in Vanity Fair. But it is more deplorable when it is a literary man who leaves his study and avocations, which would seem fascinating beyond all the glitter, the tinsel, the gewgaws, and the well-dressed mob frequenting that great broad highway, or crushing round the tables of Belgravia.

Shockingly tawdry and worthless is the biography of James Montgomery, which is a wretched attempt at Boswellize a dreary collection of table-talk, by Everett, the Methodist preacher. Both this and "Moore's Life" belong to the "Waste-Paper Remains." In Montgomery, indeed, most from his own pen commands our respect; but his biographers unfortunately felt themselves to be of the same importance with their hero. There is no conscience in such biographers; things are inverted strangely in these days; memoranda which the authors would have consigned to the trunk-manufacturers, or the butter-shop, are elaborated into seven and eight volumes. We ask a life of a man, and some literary executor publishes the miscellaneous contents of the trash-basket found beneath his study-table.

Has not the table-talk of SYDNEY SMITH been amazingly over-rated? Cheerful, certainly—funny, undoubtedly; rollicking, good-humored display of a very jolly, thoughtless parson, of whom the best things we can say is, that he had just the measure of conviction sufficient to make a very useful country squire, and a radiant practicalness and force of character, which would have made him admirable upon the Whig benches of the House of Commons. That he had powers fitting him to be more than this, there can be no doubt; but those powers were not cultivated. Something of them, indeed, appears in his *Lectures on Moral Philosophy*. There is nothing in the conversation which you would call great; he was a man with a marvelous flow of animal spirits, and in every company gives the appearance, from all records, of being the droll. One might suppose that he has not only never thought seriously or felt seriously himself, but that where he appeared, thought also was forbidden to others. His conversation was pyro-

technic, and every thing in his life gives the idea of a man who not only liked squibs and crackers, but one to whom a squib was not only a far finer thing than a rocket, but even than the majestic conflagrations of Vesuvius—than the calm and bewildering lights of the midnight heavens. He said that the art of dining was in being a good conversational cook—one who says to his company, "I'll make a good pudding of you! it's no matter what you came into the bowl, you must come out a pudding." "Dear me," says one of the ingredients, "wasn't I just now an egg? but he feels the butter sticking to him." etc., etc. But was Smith himself a good conversational cook? Other speakers had little opportunity of displaying their power. The flavor of his spice quite destroyed all the other functions of the pudding.

It seems something shameful to speak with any degree of slight of so cheerful a creature; and if we do so, it is only to qualify the amazing admiration with which his name is mentioned—the almost universal worship he has inspired. To laugh is not the highest end even of the wit—to produce incessant convulsions of laughter is surely not the end of the wise man. Even when his wisdom reveals itself by the powers of the humorist or the satirist, fun and drollery are the lowest round and reach of their dominion. We have heard clowns who have possessed in a remarkable degree these gifts; it will be granted that the degree in which Sydney Smith possessed them was altogether remarkable; he respired puns. He had but to open his lips, to drop some of those tunny conundrums of speech—all words upon all subjects happened into ludicrous combinations with him. He was a walking volume of *Punch*, always passing into a new series or a new edition, revised and improved. He never passed beyond "the visible diurnal sphere"—a comfortable man, shrewd and penetrating. We would always have listened respectfully to his advice about the disposal of monies, or the pacification of cities or kingdoms; but the last man in the world we would have desired to hold a serious conversation with, or to see by a death-bed.

It will be a question whether were not among Sidney Smith's cotemporaries talkers even more pungent and brilliant; the principal characteristic of Smith was the overflowing sea of fun through which his speech constantly sailed. Douglas Jer-

rold and Samuel Rogers were both table-talkers of uncommon brilliancy, and it must be admitted that the spices of their speech were very bitter, yet they never indulged in the rich and racy nonsense of the clergyman, who among wits may pass exactly for what Ingoldsby was, or is, among poets. Smith was more healthy, more buoyant; it must be admitted that both Jerrold and Rogers impaled upon the spear-point of a rapid and sharp talk. A not very deserving character had frequently been aided by subscriptions to keep him from pecuniary difficulties, when an appeal was made again. "Well," said Jerrold, "how much does — want this time?" "Why, just a four and two naughts will I think put him straight." "Well, put me down for one of the naughts." It was to Lord Brougham that Rogers muttered, when he had offended Sir Philip Francis by attributing to him the authorship of the *Letters of Junius*. "If he be Junius, he must be Junius Brutus." It may be truly said, however, that the table-talk of which we have heard most, has been a rapid juxtaposition of nonsensical ideas. None of the table talkers among the great seems to have been blessed with any great measure of reverence; we laugh, but what are the things recorded for? Erskine used to say, that "when all secrets should be revealed, we should know the reason why—shoes are always made too tight." Foote was talking away at a party, when a gentleman said to him, "I beg your pardon, Mr. Foote, but your handkerchief is half out of your pocket." "Thank you, sir," said Foote, "you know the company better than I do." There seems a very little in a million things like these to justify the niche of fame they occupy. We have already said they are like the little bright brass-headed nails of speech, fastened by these masters of assemblies; these are the witty men of great self-possession; men of sparkling fancy, represented in the last age by the Walpoles, and Selwyns, and Chesterfields; and in the present age by those whose names we have mentioned; their discourse, and especially the discourse of Sydney Smith, was a kind of sparrow-shot; they all lived to be amused; not one of them, excepting Jerrold, whom we except from the list, knew what it was to work; they spent their days from drollery to drollery; they were the apostles of the dining-table—

hence their whole talk abounds in the sharp and pleasant fencing with guarded swords. What claims have any of them upon any of us? the very laughter is not honest; it is no very remarkable thing to make us laugh. What is the quality of their laughter? The exhibition of monkeys in the Zoological Gardens is laughable; yet the world has it all its own way, and insists upon it that there is no wit, or pleasantry, or facetiousness, but in its own saloons, where conversation is made a kind of science, and is studied as an art; and where the repartee of the old French wit is realized. It is a difficult matter to make a good impromptu! I believe, for my part, that none are good but those that are made at leisure. On the contrary, some of us believe, or desire to believe, that table-talk is natural talk—it is the revealing talk; it is a sympathetic time when mind and heart sit at ease and in their undress; minds deconventionalized—when, if ever, the varied stores of feeling and of thought are all wondrously realized.

There are some houses especially chronicled in the annals of table-talk. There are especially two in the higher walks of life. Famous is that house you pass on your right hand on your way through Kensington—Holland House. Who does not remember the eloquent description of it, and of its entertainments by Macaulay—and its amplification by Talfourd? It is much to have a table at which to talk. Holland House, not for the gilding, the antique chambers, the avenue, the terrace, the library-shelves loaded with the varied learning; but the company—men who guided the politics of Europe; great orators and artists; and that benignant nobleman—that beautiful woman, statesmen, artists, poets—Wilkie, Mackintosh, Macaulay, Talleyrand, and, indeed, all whose names were a passport to fame! Shall we never have a lengthy description of the house in St. James Street, and its treasure—even the house of Samuel Rogers? If Lord Holland was the Lorenzo the Magnificent—then Rogers was the Mecænas of our times. There were the richest treasures of art, choicest Guidos and Titians; more catholic, and less exclusive than Holland House; there Erskine told the story of his first brief, and Grattan of his last duel; there stood the Iron Duke when he described Waterloo as a battle of giants; there Chantrey,

placing his hand on a mahogany pedestal said: "Do you remember a workman at five shillings a-day, came to your door to receive orders for work? I was that workman!" There Thomas Miller said: "Do you remember purchasing a basket of peculiar manufacture of a poor man at your door? I was that basket-maker!" And it was there that Byron's intimacy with Moore commenced over the famous mess of vinegar and potatoes. This is in the active world; but we have seen others. Such a table as that at Bowood—the long room—its noble terrace, its domed ceiling, the pictures, the busts, and the carved work, and the old bridge, and the lake. No doubt here is all that aids talk. Every body must feel the difference between all conversation in the town and the country. Yet the plainer table of Charles Lamb has wondrous attractions. Coleridge, Wordsworth, Hazlitt, Godwin, Haydon, Judge Talfourd, have brought that quiet room most pleasantly and vividly before us, and with the place, a tone of talk of altogether another description to that which gleams in the vivid and brilliant scenery of the aristocratic saloons.

But these men were not the lords of conversation. Some men, in any company, assert their royalty immediately—we do not mean in the mock-heroic way, but naturally, not ludicrously. Rogers said, that Mrs. Siddons asked for a knife at table, as if asking for the dagger in Macbeth, "Give me the dagger!" "Give me that knife!" Like the country magistrate, who, going to a trial, and being amazingly impressed at hearing the sentence of death pronounced—when returning to the bench, and having a fine of one and sixpence to inflict, or to commit to jail, said: "You will pay this fine of one and sixpence," and taking very heedlessly, we think, the name of the Highest in vain, exclaimed, "and may the Lord have mercy on your soul!" Serious conversation, as it is called, may often impress us thus ludicrously, rather than solemnly. But the table-talkers are various in type, some are simply garrulous, the talkers of society who talk and talk, and yet have nothing to say; the idlers, the hangers-on of society, the good-natured, or the bilious man with nothing to do; then there are the scandal-mongers, who always have a story of some body, and never a good word in it. We may leave all these people, and

think of conversation as one of the necessities and charms of life and social existence, as it also may become one of the pests and social nuisances.

The talk of Coleridge would never have been tolerated at Holland House. It was a kind of monologue—a golden monologue. He, indeed, of all men, might claim to be the Chrysostom of table-talkers. Some, indeed, have charged upon that talk its desultory indeterminateness. No doubt it frequently wanted point. Nay, say some, it was sometimes impossible to understand him. To his discourse might have been applied his own description of a dark night. "It was dark; it was pitchy dark; so dark that even the outs ran against each other." Yet the volume of his Table-Talk does abound in very clearly expressed and defined opinions; but in the flow of it, it was like the sea. (Old Q) the Duke of Queensbury, once in the company of Wilberforce, at Richmond, looking out upon the Thames, said: "There it is; it flows, it flows, and flows! I see nothing in it." Very honest and natural of the voluptuous old abomination! The same has been said of the talk of Coleridge. It is true here, also, that "we receive but what we give." And there are fine and true and altogether infinite things which we do not understand. What a monologue the sea is in its march of thunder on the shore! What a mysterious monologue is music! So with the speech of some men—they use language so as to give the sense of grandeur and of mystery. What is it all about? There are talkers of whom we say this; we might say the same thing of a landscape; and yet we can see a tree and a field; we can not make out the mystery. But there is a light in all highest things, even as in all highest things there is so much that is misunderstood. What is the relation of the soul to a scene, or to a starry night? We know not. Even so, often in the meandering flow of Coleridge's talk, in such speech one sees, or seems to see, the soul stepping out of its environment of clay, as it will ever attempt to do. Even as we said of the sea—its vast horizon rolls before us; but there is plainly defined the dotting island, and the tall crag, the golden suffusing light, and the pomp of cloud in the glorious and gorgeous heavens. True, some will say: "How dreary, how vague!" Yes, there is much here of "the roaming

about in worlds not realized." Perhaps we have little to regret that the conversations of Coleridge were not taken in short-hand. Well, he never could have had a Boswell! He could not have been dramatized! it was, beyond any thing we have of speech, the flow of thought attempting to make itself clear and known, uncorrected; it was mind at sea, mind on the sea; now shivering in spray; now wildly reflecting the lightning, and now the stars, and melting in the golden mist.

Of course, the name of Johnson rises immediately to the memory as one of the lords of conversation; yet he too was one of those who monopolized, who used language like a mace, and struck down all opposition with it. Perhaps it is the case with conversation, that the most happy and pleasant is the least striking. We have only the sense of the great pleasure conveyed in Johnson. We are certainly held by the sense of wonder and admiration at the succession of those felicitous audacities—some, indeed, more relieved from the stern dogmatism of manner than others, but all partaking of it in a very large degree. Thus his denunciation of Hume's theory of happiness:

"Sir, that all who are happy, are equally nappy, is not true. A peasant and a philosopher may be equally *satisfied*, but not equally *happy*. Happiness consists in the multiplicity of agreeable consciousness. A peasant has not capacity of having equal happiness with a philosopher. I remember this very question very happily illustrated in opposition to Hume, by the Rev. Mr. Robert Brown, at Utrecht. 'A small drinking-glass and a large one (said he,) may be equally full; but the large one holds more than the small.'

"Somebody said to him, 'How do you feel now your tragedy's lost?' 'Like the Monument.' Talking of drinking wine, he said. 'I did not leave off wine because I could not bear it! I have drunk three bottles of port without being the worse for it. University College has witnessed this.' Boswell: 'Why then, Sir, did you leave it off?' Johnson: '*Why, Sir, because it is so much better for a man to be sure that he is never to be intoxicated, never to lose the power over himself. I shall not begin to drink wine till I grow old and want it.*' Boswell: 'I think, Sir, you once said to me, that not to drink wine was a great deduction from life.' Johnson: '*It is a diminution of pleasure, to be sure; but I do not say a diminution of happiness. There is more happiness in being rational.*' Boswell: 'But if we could have pleasure always, should not we be happy? The greatest part of men would compound for pleasure.' Johnson: 'Supposing

we could have pleasure always, and intellectual man would not compound for it. The greatest part of men would compound, because the greatest part of men are gross.' Boswell: 'I allow there may be greater pleasure than from wine. I have had more pleasure from your conversation. I have indeed; I assure you I have.' Johnson: 'When we talk of pleasure, we mean sensual pleasure. Gross men prefer animal pleasure. So there are men who have preferred living among savages. *Now what a wretch must he be, who is content with such conversation as can be had among savages! You may remember an officer at Fort Augustus, who had served in America, told us of a woman whom they were obliged to bind, in order to get her back from savage life.*' Boswell: 'She must have been an animal, a beast.' Johnson: 'She was a speaking cat.'

His criticisms on Foote were very characteristic:

"Boswell: 'Foote has a great deal of humor.' Johnson: 'Yes, sir.' Boswell: 'He has a singular talent of exhibiting character.' Johnson: 'Sir, it is not a talent; it is a vice; it is what others abstain from. It is not comedy, which exhibits the character of a species, as that of a miser gathered from many misers; it is farce, which exhibits individuals.' Boswell: 'Did not he think of exhibiting you, sir?' Johnson: 'Sir, fear restrained him; he knew I would have broken his bones. I would have saved him the trouble of cutting off a leg; I would not have left a leg to cut off.' Boswell: 'Pray, sir, is not Foote an infidel?' Johnson: 'I do not know, sir, that the fellow is an infidel; but if he be an infidel, he is an infidel as a dog is an infidel; that is to say, he has never thought upon the subject.' Boswell: 'I suppose, sir, he has thought superficially, and seized the first notions which occurred to his mind.' Johnson: 'Why, then, sir, still he is like a dog, that snatches the piece next him. Did you never observe that dogs have not the power of comparing? A dog will take a small bit of meat as readily as a large, when both are before him.'

Some table-talkers are great because representing some great central opinions and revolutions. The opinions of their free hours and moments are most important; in them they fire their friends and disciples; amidst their festivities the soul of active life blazes forth; they are statesmen over their cups; they mark out a line of action round their plates; and their table becomes a confessional, a consistory, or a council of war. Such, in some measure, was the table-talk of Luther. How constantly reflecting the moods of the man's own mind, variable and deep, stormy and calm! Sometimes it is like some great spiritual animal talking—coarse, vehement.

He was never in the clouds, seldom indulged in the long dissertation; so, on the contrary, his speech does not abound in the sharp and brilliant points of expression. Yet his table-talk would seem to be very like his preaching—it was overflowing talk—rousing, solemn, musing, brooding talk. Perhaps, to every highly successful talker and orator, there is essential the strong broad base of an animal nature. Ideas alone, even ideas clothed in the drapery of a rich and imaginative expression, are not sufficient for the crowd; some personality, some individual interest, some sting of talk, some vehement identification of the speaker's self with the crowd. There was all this in Luther. It was not information like that we find in Selden—it was not ethereal, wandering through nebulous star-dust like that we see in Coleridge—it was not insolent and overbearing like that of Johnson, it was, indeed, like the talk of a great human child! What talk it is—what strength, what courage, what common sense, what utterly ridiculous superstition, what stories of the devil and of witches, what cheerful garrulousness, what moody biliousness, what humor, and what humors! We all along see the spirit with which, in one sentence, he exclaims: "I have often need in my tribulations to talk even with a child in order to expel such thoughts as the devil possesses me with." And again: "When I am assailed with heavy tribulations I rush out among my pigs, rather than remain alone by myself. The human heart is like a mill-stone in a mill; when you put wheat under it, it turns, and grinds, and bruises the wheat to flour; or if you put no wheat it still grinds on, but then 'tis itself it grinds away." And this is the secret of the talk of this great soul. Of all the table-talkers, there is most humanity in him; most that with humanity gives also the feeling of the earnest, apostolic man.

We shall, perhaps, surprise our readers, when we avow our belief that the lord of modern conversation most nearly approaching to Johnson, but in many things far surpassing him in conversational powers, was Robert Hall. He had that rapid nimbleness of fancy and imagination, seconded by a vehement rapidity of language. His estimate of a very popular author was good if not just: "Sir, he has set out on a race after obscurity; and, sir, he has overtaken her." Again, on a pleasant ride with Mr.

Green, as the great preacher's eye glanced over the sun setting beneath the waves, he exclaimed: "Only look, sir: that mild, silvery light on that expanse of waters! why, sir, it looks as if they were preparing for a magnificent public baptisms, and the whole of the hundred and forty and four thousand described in the Revelations were about to descend into the waves!"

We believe Robert Hall was the finest of all our table-talkers. He was in conversation what he was as a preacher—rapidity, imagination, wit, and force—he possessed these in a large degree. Somebody said: "No doubt, in a future state, the powers of the human mind would be enlarged to an indefinite degree." "What's that, sir? What's that?" The question was repeated. "Why the mind more than the body, sir?—the body undergo this frightful increase? then we should have a man whose nose would perforate the sun, his chin stretch across the Atlantic, and battles fought in the wrinkles of his face; none but a fool could believe that, sir!"

He was unhappy in his courtship of Miss Steel. When he was perhaps smarting beneath the disappointment, he went out to tea. The lady of the house said, with no very good taste: "You are dull, Mr. Hall; we have no polished *steel* here to entertain you." "O madam! that's not the slightest consequence; you have plenty of polished *brass*!" On another occasion, when some rumor of marriage had gone about, he broke out decidedly at once: "Sir, sir, marry Miss —, sir! I would as soon marry the devil's daughter, and go home and live with the old folks." His genius for happy retort never slumbered. One of his congregation, a sickly, querulous, old mortal, met him in the street: "Ah! Mr. Hall, you have — never — been — to see me — sir. I've, I've, I've been very ill. I've been — at Death's door — Mr. Hall." "Why didn't you step in, sir? Why didn't you step in?" A timid man was the subject of conversation, when he remarked: "Mr. — is so nervously modest, he seems always to be begging pardon of all flesh for being in the world!" Foster's distinction between Hall and Coleridge was very good. Hall used language as an emperor. He said to his words, go, and come, imperially, and they obeyed his bidding. Coleridge used his words as a

necromancer, so ærial and unearthly were their embodiments and subjects.

Robert Hall never had an audience in the midst of which he could shine. How would his sudden and brilliant coruscations have astonished the brilliant companies of Holland House! Can we doubt for a moment that he had a genius for conversation inferior to none of the distinguished people who thronged there? He not only had a genius inferior to none, but he had faculties which would have placed him in a rank superior to all. He would never have condescended to the mere fun and frivolity of Sydney Smith; but he had a wit quite as brilliant, a point and force as pertinent and strong; while the range of his thought, and the fervor of his imagination, would have suggested topics of an incomparably higher character than those which relieved the monotony of dinner table. It is very true that Christian ministers of Robert Hall's creed and complexion can not join, or can not feel at home, amidst the coteries of Holland House; and, perhaps, it must be admitted that his dignity was not of that cold, well-bred order which puts always the curb upon expression. His words, like the hoofs of prancing and curveting steeds, struck sparks as he passed; and the sentences created the shock, not only of surprise, but of fear, and gave not only the fire and light of speech, but if often only the pleasantry, frequently the awe and wonder too.

We have fallen upon a very fruitful and suggestive topic, and one upon which it would be very easy to dilate through the whole of our number instead of a few pages; and perhaps we have even at last missed the subject upon which we pur-

posed to have exercised our pen — namely, the rarity of a good conversation. We had purposed to have lingered over some of these advantages which we might all derive did we more conscientiously and consciously guard the gift of speech, and especially speech in private by the domestic or the social table. No other occasion so truly reveals a man; it has been justly said, "The mind is like a trunk; well-packed, it holds almost every thing; ill-packed, next to nothing;" and the packing of the mind is displayed in conversation generally — the artifice of public speech is wholly unavailing there. In the work we have placed at the head of this article on the *Rhetoric of Conversation*, we have some admirable hints. It is, indeed, an American work; it is full of instruction upon the topic to which it refers. We must take exception to some of the opinions and criticisms in the text, and to some remarks of the excellent editor. But we must leave this subject of conversation for another paper. Those wondrous table-talks of the ancients — the banquet of Plato, or the Phædo, which may perhaps also stand in our thought by the side of other moments of conversation before death and martyrdom — the table-talk in the prison of the Conciergerie, with the twenty ready to be offered in the morning on the guillotine, not at all an edifying last supper, we think. And then reverently stepping aside to the Sacred Supper — to the last hallowed hour of the Master with the Eleven — surely with wonderful pathos revealing how hallowed a medium for highest intercourse a conversation may be, how sacred and holy even a meal may become.

From the British Quarterly.

THE FOUR-FOLD BIOGRAPHY.*

THE birth of Christ was the beginning of modern history, and his life has been the source of all that is highest and happiest in every subsequent age. At the time of his coming the world had reached a condition requiring aid from heaven. The Jews had become so corrupt that their own historian has declared his belief that the doom of the Cities of the Plain must have come upon Jerusalem if it had not been taken by the Romans. Greece had passed its culminating point, and lay under the severe dominion of all-conquering Rome. Its gay and light-hearted religion, never at any time possessing much of seriousness, had lost whatever moral power it might ever have possessed, and was now chiefly the minister to a depraving sensuality. But, even in her depression, Greece had captivated her conqueror; and the language, poetry, and thought of the conquered country had become the pride and ornament of the people whose dominion extended from the Atlantic to the Tigris. Philosophy had brought, to Greece and Rome alike, liberation from the reverence and restraints of religion. The luxurious gayety of Epicureanism, and the frivolity of the skepticism of the New Academy, had taken the place, to a large extent, of the ancient homage to the gods. Stoicism had its few firm disciples and its multitudes of worn-out professors; but its moral influence was slight, and the light it imparted only darkness visible. Over all minds there hung one ever-deepening cloud of doubt about the deepest things

of human thought and feeling. Men found it easier to refute each other's views than to reach truth for themselves. Seneca regarded the worship of the gods as only the homage due to good manners, not to their own worth. The immortality of the soul was a question of curious discussion; but whatever the conclusions of the disputants, not one of them had such a conviction as could afford comfort in adversity, or throw a relieving gleam of hope on the hour of death. At a later period, the elder Pliny condenses into a few sentences the general feeling:

"The vanity of man, and his insatiable longing after existence, have led him to dream of a life after death. A being full of contradictions he is the most wretched of creatures; since the other creatures have no wants transcending the bounds of their nature. Man is full of desires and wants, that reach to infinity, and can never be satisfied. His nature is a lie — uniting the greatest poverty with the greatest pride. Among these so great evils, the best thing God has bestowed on man is the power to take his own life."

The condition of society throughout the Roman empire was such as must have frequently forced men's minds to serious thought. Rome was rising from her brick foundations, to realize the boast of Augustus in her marble beauty and grandeur, and every portion of the empire, barely breathing from its wasting wars, was groaning under the pressure; and in all that sages taught, and poets sang, and priests disclosed, and oracles muttered, there was no cheer, no relief. Foreign religions were tried in vain. The worship of the Egyptian Isis and Serapis was imported, and temples were erected to their honor, in which their priests beguiled the wealthy and the noble of imperial Rome. Superstition evoked the aid of magicians. The mouth of the Orontes poured into the Nile, by legions, the Syrian soothsayers. Roman generals submitted to their guarantee. A Roman emperor surrounded himself

* *An Introduction to the Study of the Gospels.* By BROOKE FOSS WESTCOTT, M.A. Cambridge: Macmillan & Co. 1860.

Historical Lectures on the Life of our Lord Jesus Christ. Being the Hulsean Lectures for the year 1859. By C. J. ELLICOTT, B.D. London: J. W. Parker & Son. 1860.

Observations on the attempted Application of Pantheistic Principles to the Theory and Historic Criticism of the Gospel. Being the Christian Advocate's Publications for the years 1840-1844. By W. H. MILL, D.D., F.R.A.S. Second Edition. Cambridge: Deighton, Bell & Co. 1861.

with Chaldean astrologers. Even the wits of Rome were familiar with the vaticinations of Babylonian star-gazers. But still the darkness was unrelieved; the misery only increased. So true are the words of Augustine, "Christ appeared to the men of the aged, dying world, that, while every thing around them had withered away, they should receive, through him, a new, youthful life."

When the "fullness of the time was come, God sent forth his Son." The world wanted a Redeemer, a Teacher, and a King; and he came whose right it was to reign. He lived here for somewhat more than thirty years. He moved amongst men as a man, and yet leaving the impression on many minds as of one who belonged to a higher sphere. His life was spent in acts of mercy. He was poor and lowly; yet he enriched multitudes by his teaching and his miracles. He mingled with publicans and sinners; yet his life was spotless. He gathered disciples around him, the very purest and loftiest of whom confesses that by them he was but partially known, and often misinterpreted while he was with them. He was executed, in the manner which imported greatest shame, by an undiscerning nation, whose wickedness culminated in the act; but he had taught that to this end he had been born; that ancient prophecy had declared it; and that his death was his own voluntary act, and the necessary means of accomplishing the design of his life—the salvation of men. His disciples testified that he rose again, and appeared to them and hundreds more who believed on him. Throughout a life of self-denying labor in the endurance of poverty and persecution, they continued to bear this testimony, until many of them sealed it with their blood; and before they rested from their earthly labors, some of them committed to writing, or instructed others to do so, the substance of their life-long teaching about the Master, who was still spiritually present with them, and to whose energy they ever humbly and gratefully attributed the success of their labors. These accounts constitute that Four-fold Biography, to the characteristics of which we desire to direct the attention of our readers.

From those labors and writings a great change passed upon the world. Men heard the singular story with various

feelings. Many mocked and blasphemed, but many also believed; and in every case belief was accompanied with a change of character and condition. The gloom of doubt was dispersed. An unearthly joy enabled the believer to endure the calamities of life. The future became radiant with hopes of immortality. Love to God and man became the ruling principles of life. And, as a new proof of the inspiring influence exerted by their faith, each believer became a missionary of the truth to others; "so mightily grew the word of God and prevailed." Before one century had passed, the principal cities of Asia Minor had become the seats of Christian churches; the Orontes sent from its christianized Antioch a widely different host of emissaries. Greece had learned to discern its "unknown God" in Jesus of Nazareth; and from the quays of Corinth the precious merchandise of truth and salvation went forth to enrich the nations. Upon the darkness of Africa the true light had shone; the distant East had confessed its wisdom folly in the presence of Jesus of Nazareth; and in the imperial city thousands adored his name, and the palace of the Cæsars had its confessors and martyrs. Still the truth advanced. Persecution tracked its progress; so that, for a long time, the surest marks of that progress are the traces of martyr blood, the fires of martyr anguish; until, after two centuries more of persecution, its power had so much increased that one of the most far-seeing of the Emperors professed Christianity for himself, and sought to make it the religion of the empire. Let us pass through all these centuries; visit all the lands and tribes amongst whom the Gospel has penetrated, whether rude and savage, or glorying in a high antiquity, and rejoicing in elegant culture, and ask for the reason of their serene faith, their holy lives, their dauntless heroism under persecution, their boundless charity. One answer only meets us, and that answer is—Jesus. We hear it in their hymns; it is the mighty word which imparts urgency and efficacy to their prayers; it supplies motive to their love and devotion, strength to their endurance, and impulse to their action. Their lowly tombs, sometimes in the heart of the earth, bear it in the rude symbols, which were the beginnings of Christian art, and "Sleep in Jesus" is their favorite inscrip-

tion. The person of Christ has gathered around itself all this faith and homage, has breathed this peace, and inspired this hope, disarming terror, and wresting the victory from death. In our inquiries we can not fail to meet men who are generally received with suspicion as heretics; men who have united with the teaching of the Apostles some figments of expiring philosophies, in which they had been previously trained, or which they deemed essential to a clearer understanding of that life, so clear and yet so mysterious; but wherever we find them, they, too, are occupied about one thing. One name is the source of their distinctive faith; their fiercest controversies center in it; it inspires their zeal; and that name is—**JESUS.**

If we further inquire into the sources of their knowledge of this object of faith and affection, we are not left long in suspense. From an overwhelming majority we are referred to books which have been multiplied with suprising celerity, and are perused with peculiar reverence, and preserved with sacred care; and which some call "the Gospel," others "the Gospels," according as they had realized their sublime unity, or only recognized them in their distinct individuality. That word which Jesus had used to denote the gladness of the message which he bore to men, has become the term by which they gratefully designate the volume in which his life is set forth, his actions celebrated, and his word recorded. It has become a word preëminently dear to men; next to his own name, the most precious word they speak.

These Gospels still remain to us. They have passed through the severest ordeals, have been tried by the sternest tests; but out of every ordeal they have come forth proved words. If a skeptical spirit exists, it is sure to manifest itself in relation to the records of the Saviour's life. If they can be discredited, doubt is thrown upon the whole Christian religion, for its very foundations are destroyed; and hence, around these writings the battle has been ever thickest, and the onset most furious. It is with no feeling of alarm we regard the renewal of attention to this department of our history, convinced as we are that each fresh attack will only call forth new and abler defenders, until the hundredth answer has been given to the last objection, and even infidelity

with blushes renounces the oft-repeated task of refurbishing the old and blunted weapons to "cast at the shield of truth." Recent attacks have called forth the works, the names of which we have placed at the head of this article—works which have no superiors in our language, and which would adorn any age of our literature.*

* The work of Mr. Westcott is an enlargement and revision of one published by him in 1851, with the title of *The Elements of the Gospel Harmony*. After an introduction on the inspiration, completeness, and interpretation of Scripture, on which we can not stay to comment, he proceeds to discuss "The Preparation for the Gospel," almost exclusively among the Jews, "The Jewish Doctrine of the Messiah," "The Origin of the Gospels," "The Characteristics of the Gospels," "The Gospel of St. John," "The Differences in Detail of the Synoptic Evangelists," "The Differences in Arrangement of the Synoptic Evangelists," and "The Difficulties of the Gospels," concluding with an appendix, which exhibits a very full view of the primitive doctrine of inspiration, and some other matters of importance. The work is executed with conscientious care, displays great thoroughness of investigation, and is characterized by remarkable completeness of representation. Mr. Ellicott's work has a different object in view—not to furnish a new life of Christ, but rather in thoughtful discussion of the various questions that have arisen in our recent theological literature, concerning that portion of the sacred writings which contains the records of that divine life. In grouping together the Acts and Teachings of the Master, he has adopted the geographical arrangement; thus availing himself of the advantage in vividness of representation which is imparted by the relation of locality. In every thing that relates to the chronological relations, also, great care has been taken, and the labor of this department must have been immense. His learning is more full and exhaustive than that of Mr. Westcott, his style more clear and calm; while over the whole discussion there presides that spirit of genuine piety and hallowed reverence, which makes the perusal of the book an exercise of the heart no less than of the intellect. Dr. Mill's work, now most opportunely reprinted, differs in most of its features from the others. Originally produced as the "Christian Advocate's publications," at the time when the views of Strauss were beginning to receive attention in this country, it is more fundamental in its character. Dr. Mill sets himself the task of examining the Pantheistic philosophy and Christology of Strauss and his teachers; from whence he proceeds to make an application of these principles to the Evangelic records of the birth of John the Baptist, and the birth and infancy of the Lord Jesus. The exposure of the mythical theory is crushing and merciless, while the vindication of the Gospel records is completely triumphant. In the union of vast and concentrated intellectual power with varied and accurate learning, ancient and modern, and a firm adherence to the historical creed of Christendom, this book ranks with the writings of such men as Bishops Bull or Pearson. The new edition, edited by the author's son-in-law, is very neat and accurate, containing some additional notes of the author.

As we advance, it will be evident that we do not in all matters agree with these valuable authors; but we hope to make some use of each, and earnestly commend them all to every studious reader.

We have said that these Gospels remain to us: and the evidence by which we recognize their identity is of a character so clear and convincing, that it has satisfied minds of the most skeptical order. About the close of the first century, and immediately after the beginning of the second, we have the productions of those men who have been called the Apostolical Fathers—Clement, Ignatius, and Polycarp—men, some of whom were acquainted with the apostles; and in their writings, though exceedingly brief, we find such quotations, from some or all of these Gospels, as show that in that time they existed. Before the first half of the second century had passed away, those writings of Justin Martyr were produced, in which he mentions these *Memorabilia* of Christ, and so extensively quotes from them, that, notwithstanding occasional deviations from their *ipsisima verba*, such as would naturally arise in quoting from memory, we are certain that he knew our Gospels. He was martyred in A.D. 165; and yet during his life these records were read in the Christian assemblies on the Lord's day, together with the writings of the Prophets—so early had the holy instinct of the Christians discovered their value, and assigned them their legitimate place. Irenæus, in the beginning of the second half of the same century, writes from the city of Lyons a book against heresies, in which he boldly declares there are four Gospels, and only four—designating them especially "*quadriforme Evangelium*,"* a Gospel of a fourfold form; and proceeds to say "that so firmly established are these Gospels, that even the heretics render their testimony to them, and endeavor to confirm their own doctrine by them." Clement of Alexandria, one of the most learned of the early Christians, in a work which has been lost, but of which Eusebius has preserved some fragments, refers to them, and thus narrates their origin and order as he had it from "the oldest Presbyters." He says that "those which contain the genealogies were written first;" but that the Gospel of Mark was occasioned in the following manner:

* *Adv. Her.* lib. iii. chap. xi.

"When Peter had proclaimed the word publicly at Rome, and declared the Gospel, under the influence of the Spirit, as there was a great number present, they requested Mark, who had followed him from afar, and remembered well what he had said, to reduce these things to writing; and that, after composing the Gospel, he gave it to those who requested it of him; which, when Peter understood, he directly neither hindered nor encouraged it. But John, last of all, perceiving that what had reference to the body in the Gospel of our Saviour was sufficiently detailed, and being encouraged by his familiar friends, and urged by the Spirit, wrote a spiritual Gospel."*

Tertullian also, about A.D. 202, writing from Carthage, after he has laid it down for a certain truth that "the evangelic instrument," has apostles and apostolic men for its authors goes on to say: "To conclude, among the apostles, John and Matthew teach us the faith; among apostolical men, Luke and Mark refresh it, proceeding upon the same principles as concerning the one God, the Creator, and his Christ, born of the Virgin, the fulfillment of the law and the Prophets."†

At the time when these words were written, Christianity had spread very widely in the world, and the copies of the Gospels extant are computed to have been not less than sixty thousand.‡ The testimonies we have adduced came to us from Palestine and Rome, from Asia Minor and the banks of the Rhone, from Alexandria and Carthage. The men who bear the testimony are men of great ability, and two of them, at least, of extensive learning. Some of them have become converts to the truth from heathenism, and their testimony receives increasing corroboration as time rolls on. They quote extensively from the book of which they so speak; and in the two volumes of Tertullian now before us, or in the folio of Clement of Alexandria, there are more numerous quotations from the Gospels, or allusions to them, than can be found in all the writings of a century to the works of Cicero, though these latter are more than twenty times as large as our Gospels. No Council had decided on the authenticity of these works, no Pope had authorized them. No such authorities were recognized at this period; and

* Eusebius, *Hist. Eccl.* lib. iv. chap. xiv.

† *Adv. Marcionem*, lib. iv. chap. ii.

‡ Norton's *Genuineness of the Gospels*, vol. i. p.

the bold stand made by Irenæus, against the assumption of authority on the part of Victor, Bishop of Rome, about the time of celebrating Easter, shows that no such authority would be tolerated. The Councils only followed in the wake of the churches. Other writings in abundance were floating about among the Christian communities, professing to detail facts of the Saviour's life and ministry; but to none of these did the scattered churches ever accord the high and sacred place unanimously and universally given to these four. Even the heretics themselves gave their testimony to them, and the Gospel of Marcion was but a mutilated copy of that of Luke, from which all that would indicate the human origin of Christ was sought to be removed; but so imperfectly was it accomplished, that Tertullian exclaims: "I pity thee, O Marcion; thou hast labored in vain, for the Christ Jesus in thy Gospel is mine."* If it is borne in mind that some of these heresies arose very soon after the death of the last Apostle, and that their maintainers received, and used, and sought to prove their speculations by these Gospels, the evidence for their authority and antiquity, thus commonly admitted and felt by opposing parties at this early period, comes with resistless force to us. Indeed, it is in the writings of some of these very heretics, (Basilides and his followers,) we find the first application to the writings of the New Testament of the title so dear to Christians—"The Scripture," and the use of the formula of quotation—"It is written."†

The passage we have cited from Clement of Alexandria opens a question to which a little attention is due—the origin of the Gospels. The use of this term is not intended to indicate any thing as to their primitive source, but only the human means by which the Holy Ghost prepared for us this fourfold view of the Redeemer's life. The view of this matter which obtained in the early churches was very simple. Matthew wrote his own Gospel as the testimony of an eyewitness; Mark as "the interpreter of Peter." Luke informs us, in his preface, of his own process; and John wrote, at a later period, a spiritual Gospel, according to Clement; or with a polemic design

against the errors of Cerinthus, according to Irenæus; or against Gnosticism generally, as many theologians, earlier and later, have believed. That the Gospel of John is supplementary, and essential to the completeness of the Evangelic representation, we shall not fail to show. But, notwithstanding the simplicity and general satisfactoriness of the early belief, few questions have been more earnestly discussed in modern times than this of the origin of the Gospels. Matthew's Gospel is sometimes represented as the first, of which Mark's is only an abridgment. Others believe that Mark's is the original, from which both Luke and Matthew drew much of their material. Luke is sometimes represented as a contributor to Mark. Some say that there must have existed some common written source from which the chief materials were drawn, and which accounts for the broad correspondences of the documents, while the writers' differences were the result of individual preferences and tastes. Eichhorn almost exhausted this *Protevangelion* theory. He imagined that it would not be difficult to construct, from the agreements of the Evangelists, the original document; but he required also four other documents to account for their differences. I. The original document. II. An altered copy used by Matthew. III. An altered copy used by Luke. IV. A third copy made from the two preceding, used by Mark. V. A fourth altered copy, used by Matthew and Luke in common. It will occur to ordinary readers that this is sufficiently perplexing; but it is outdone by Bishop Marsh, who found occasion for as many as eight documents. I. A Hebrew original. II. A Greek translation. III. A transcript of No. I., with alterations and additions. IV. Another, with another set of alterations and additions. V. Another, combining both the preceding, used by Mark, who also used No. II. VI. Another, with the alterations and additions of No. III., and with further additions, used by Matthew. VII. Another, with those of No. IV., and further additions, used by Luke, who also used No. II. VIII. A wholly distinct Hebrew document, in which our Lord's precepts, parables, and discourses were recorded, but not in chronological order; used both by Matthew and Luke.*

* *Adv. Marcionem*, lib. iv. chap. xliii.

† Westcott on the Canon, p. 819.

* Taken from the article "Gospels," in Smith's *Dictionary of the Bible*.

But even all this complicated apparatus was not sufficient to account for every thing found in the Evangelists; and Eichhorn, in his last revision, required no less than twelve sources; and how many more he might have required, who can tell? The document hypothesis labors under the grievous disadvantage of being unsupported by external testimony, in addition to its inherent difficulties and utter incapability of interpreting the phenomena it is invented to illustrate. Wiser thoughts possess our own generation; and our most advanced writers are coming gradually but surely to the adoption of that theory, which is at the same time the most simple, natural, and satisfactory—that of *oral* communication forming the essential groundwork of the whole. Gieseler has had the credit of being the first and most acute expositor of this ancient view in our own day; and such is its combined thoroughness and flexibility, that we predict for it a very general acceptance. It does not deny that some documents existed—fragments of discourse or of narrative—but it does not found upon them. It harmonizes best with the conditions of the apostolic life, and with the characteristics of Jewish instruction. The Jewish doctors did not write their instructions for their disciples, but handed them down traditionally by the succession of teachers. The work of the Apostles, as defined by the Master himself, was “to preach;” and writing could only become their employment when the work of preaching had been extensively performed, and an extending Christian society called for the reduction of their teaching to writing, for its safer preservation and wider spread. If this was, as we believe, the origin of the Four Gospels, it is easy to account for their varied or harmonious phenomena. The Apostles were not always separated, but abode long time together. The facts of that life which had given inspiration to their souls, and the repetition of those discourses which had enlightened their minds, would naturally form the staple of their instructions. Frequent repetitions would fix them in memory, and also fix their individual forms of expression. When separated, and preaching apart in different lands, each would carry his own conception, order, and style with him; and when he himself would commit it to writing, or commission or permit others to do it for

him, these characteristic differences would remain, while the substantial representation, and many common phrases, could not fail to be the same. Mr. Smith, of Jordanhill, in his very acute and ingenious *Dissertation on the Origin and Connection of the Gospels*, supposes that Luke used Matthew’s Greek Gospel, and one of Peter in Hebrew, which was afterward translated by Mark; that he used the one by transcription, and the other by translation; and produces some interesting evidence in favor of this theory. He also lays it down as one of his fundamental positions, that Mark translated Peter’s Hebrew Gospel after the Apostle’s death or departure from Rome (ἔξοδον.) The late Dr. Donaldson, in his *Christian Orthodoxy, etc.*, strongly favors the idea of a Hebrew or Aramaic original. Mr. Smith seems to rest very much on the term, ἐρμηνευτής, applied to Mark, by Papius, Irenæus, and Clement, and rendered *interpretes* by Tertullian and Jerome. But this word does not necessarily signify a translator from one language into another; and, indeed, is nearly always used in a wider acceptation. To us it is strange that, at a time when there are some who deny the strong and all but universal assertions of antiquity, that Matthew wrote his Gospel in Hebrew, there should arise a theory respecting that of Mark, which has not a particle of external evidence. There is nothing in the Gospel of Mark which suggests translation from a Hebrew original, that may not be made equally plain by the consideration that Peter could not fail often to speak to his compatriots in their own dialect, although they were all familiar with the common Greek. If any theory about this Gospel might obtain acceptance before another, it would be rather that our present Greek document was a translation from one previously written in Latin. For such a document the testimonies are considerable, and the Latinisms that abound in Mark’s style would go far to give credence to it. It is not our intention to propose or defend this theory; but we only mention it as having more of both internal and external evidence than that which appears to be in favor with some.

The Matthew’s Gospel was originally written in Hebrew, or Aramaic, is extensively testified. Papias, Bishop of Hierapolis, in Phrygia, informs us that “Mat-

thew composed the oracles in the Hebrew language; but each interpreted them as he could.* The same fact is witnessed by Irenæus and Origen.† Jerome tells us that Pantænus, afterward head of the school of Alexandria, and tutor of Clement, having been invited to India, and sent there by Demetrius, Bishop of Alexandria, "found that Bartholomew, one of the Twelve Apostles, had preached the advent of the Lord Jesus according to the Gospel of Matthew, which was written in the Hebrew language; and, returning to Alexandria, he brought it with him."‡ The words of Papias show that the Greek translation had not become current in Phrygia; but there never seemed to be a doubt in the ancient churches, that our present Gospel was other than Matthew's own; although the critics of our time have broached not a few theories about the translator. Justin Martyr evidently used it, and had no scruple about its authorship; the only question respecting the translator coming from Jerome, at the close of the fourth century, "who may have translated it into Greek, is not sufficiently certain." The account given by Eusebius of Matthew's reason for writing his Hebrew Gospel is very interesting; that, having preached to his countrymen, he was about to go to preach to others, he left with them in writing the Gospel he had taught, to satisfy them for the loss of his presence. (*H. E.* iii. 24.)

About the Gospel according to Luke there is little difficulty. He, himself, avows the principle on which he proceeded in its composition, and the end he sought to attain. That he did not belong by birth to the people of the Promise, there is strong reason to believe. His name, and the allusion made to him in Col. 4 : 11-14, where he is spoken of as not "of the circumcision," show a Gentile extraction. He writes for a Gentile friend, and his whole production bears the same broad impress; while his language and style show that he is more at home with classic Greek than any of his companions. That he was the companion of Paul, in all probability gave rise to the tradition that he wrote under his direction. Tertullian speaks of Paul as "the

illuminator of Luke,"* and asserts that "to Paul they are accustomed to ascribe the summary (or arrangement—*digestum*) of Luke."† He used, besides, all available materials, and sought to write a well-ordered account.

"But the notion of order (*καθεξής*) does not necessarily involve that of time, but rather of moral or logical sequence, (cf. *Acts* 11:14.) The two may coincide, and in the exhibition of a perfect life they will in the main; but chronology is not paramount in the Gospels, and the language of St. Luke does not imply that he designed to follow it. Like the teaching on which it was first based, the record is subservient to special requirements. It is complete in regard to its object, but not absolutely; a message of good tidings and not a biography, united in its several parts by a spiritual law, and not by a table of dates."‡

The fourth Gospel calls for special inquiry. No other has been so violently assailed, and of no other has the defense been so difficult. Schwegler assigns it variously to "the middle of the second century," or to "the beginning of the last third of the second century," while one of our own countrymen has spoken as if there was "no external testimony as to its existence earlier than the year 170." Such a length of time is supposed to have given scope to the tendency which Strauss fancies he discovers—to collect *myths* around the original stock of truth. We can not forbear saying that it was very discreditable to these gentlemen to hold such language. Before the first decade of the second century had ended, we have Ignatius, the Bishop of Antioch, in his Epistles to the Philadelphians, Magnesians, and Romans, using expressions that are so strictly quotations from this Gospel, though not accompanied with the formula of quotation, (which had not yet come into use,) that we can not but feel persuaded that the writer was familiar with it; other expressions are most distinct recollections of its peculiar phrases. The genuineness of these letters is doubted; but there is no doubt about the *First Apology* of Justin Martyr, nor much risk incurred in deciding that it was written about the year 140; and in this we have one of John's most peculiar portions quoted; while, in *The Dialogue with Trypho*, we have at least three portions that

* Papias *apud* Euseb., *H. E.* lib. iii. chap. xxxix.

† *Adv. Hær.* lib. iii. chap. i. *Comm. in Matt.* i.

‡ *Hieron. Catalogus Script.* Illustr. 46.

VOL. LVI.—NO. 3

* *Adv. Marcion.* lib. iv. chap. ii.

† *Ibid.* lib. iv. chap. v.

‡ Westcott's Intro. p. 174.

are evidently derived from John's Gospel. Tatian also, his disciple, wrote a *Diatessaron*, in which he has used the Gospel of John together with the Synoptics. The heretics of that earlier time were acquainted with it; and Basilides, as Hippolytus witnesses, quoted it, and commented on it. His period is about A.D. 117 or 120. "And thus," to use the words of Mr. Westcott, "an Alexandrian heretic recognized simultaneously the teaching of St. Paul, St. Peter, and St. John, while Polycarp was

still at Smyrna, and Justin Martyr only a disciple of Plato. And the fact itself belongs to an earlier date, for this belief can not have originated with him; and if we go back but one generation, we are within the age of the Apostles."* With such testimonies to the earlier date of the Gospel, we feel no fears, even if it did not so manifestly declare by its internal characteristics its divine origin and truthful character.

[TO BE CONCLUDED.]

From the Dublin University Magazine.

D I E G E I S T E R T O D T E N G L O C K E .

THE GHOST-DEAD-BELL.

IN the year 1845, while staying in Paris, I formed the acquaintance of Dr. B——lle, then one of the most eminent physicians at Versailles. It was just at the period when the famous clairvoyant, M. Alexis, was astounding the whole country and perplexing the psychologists by his marvelous exhibitions. One evening I received an invitation from my friend, the Doctor, to *assist* at a private *séance* which was to take place the next day at the Doctor's house, where the clairvoyant was to display his powers before the *élite* of the neighborhood. I accordingly attended at my friend's, and found some dozen people assembled, medical men, philosophers, one or two *litterateurs*, and an Austrian officer. It is not my present object to enter into any detail of what we then saw and heard. The performance, as in all like cases, affected those who witnessed it very differently according to their education and disposition. Some were thorough believers, some thorough skeptics, some, though unwilling to give credence to what contradicted both experience and preconceived notions, were yet unable to doubt their senses or explain the phenomena. So they shook their heads and looked wise, when they ought perhaps, to have looked foolish.

When the *séance* was over, and M. Alexis had retired, most of the party remained conversing upon those strange spiritual revelations to which their minds had been directed; and all sorts of doctrines and theories were broached, touching animal magnetism, electro-biology, clairvoyance, odylie emanations, hypnotism, and all the rest of that recondite nomenclature, with which men endeavor to hide their ignorance by substituting hard names for a knowledge of harder realities. At last one of the most dogged of the skeptics declared that he had no belief whatever, in any of those pretended spiritual influences—that in every age of the world, successful charlatans and miracle-mongers were able to deceive mankind through the agency of accomplices and the resources of natural magic. He was passionately encountered by an earnest, all-believing, excitable young man, with pale face, nervous temperament, and strangely luminous, black eyes, that seemed to be looking inward upon his own soul, rather than on external objects. He maintained that the intercourse of spirits was all-per-

* Canon of the New Testament, p. 323.

vading, and would be evident but for the grossness and corporeity in which the spirits of most men groveled, till they were blinded and brutalized.

"For my part," he continued, "I believe with Lypsius: 'Adstantes hic jam nobis spectantes et arbitantes.' The history of the whole world, sacred and profane, teems with proofs of this great truth." And then he cited a multitude of instances, and arrayed a host of names that had a prodigious effect on his auditory. To say nothing of holy writ, he appealed to saints, fathers, philosophers, and physicians without number; St. Austin and St. Jerome; Tertullian and Porphyry; Socrates and Plato; Pythagoras and Tresmegistus; Paracelsus and Jerome Cardan, not omitting Lavater *de spectris*.

By the time he was out of breath, there was something like a rally amongst his auditory. One gentleman admitted spiritual influences and manifestations on great occasions; but maintained that such instances were abnormal and exceptional. Another—a writer of romances—believed in spirits being confined to certain spheres of operation—places, persons, or things—such, he said, were familiars, lares, and genii locorum. Hence we have oracular groves, vaticinating trees, holy wells, nay, saltatory chairs and tables, haunted violins, and even fiddlestrings informed by the soul of the cat of whose entrails they were made.

Our host, who had a very pleasant vein of convivial humor, said:

"En effet, messieurs, I will quickly illustrate this truth in the case of holy wells and the '*genius loci*,' par une demonstration aussi interessante que simple. Attendons un peu."

He ran the bell, whispered a few words to the servant who entered, and vanished. We awaited in silence. In a very short time there were audible through the half-open door, a sound, clear, musical, and tremulous, like the sweet clashing of musical glasses. The next moment an involuntary exclamation escaped the lips of every one present, as the servant returned, bearing a large tray covered with flasks and glasses, whose edges, knocking against each other, shook out the pleasant music we had heard.

"Here," said our host, pointing to a champagne flask, "is a holy well, wherein is confined a spirit to purge all melancholy

humors. This other, messieurs, contains the *genius loci*, brought all the way from Bordeaux—a familiar spirit so to speak. Goutons."

"Capital brandy!" said one of the medical gentlemen, smacking his lips, and holding his glass between him and the light.

"A potent spirit, and an evil withal, which has slain many men," said a writer of lyrics; "I will make a smoke, as Tobias did, so that he shall smell it and flee away," and he lit a cigar. Thereupon we all laughed and grew merry.

"I will tell you a veritable story," said the young man with the introverted vision, "which is vouched for by a very learned professor of mathematics in the University of Wurtzburg, Father Caspar Schott, in his great work the *Physica Curiosa*."

"There lived, once on a time, in a little town of Brabant, a certain young virgin, and it happened that a youth of the same town fell deeply in love with her. The maid returned his passion heartily, and so, after a time, he goeth straightway to her parents, and asketh of them their daughter in marriage. To this they will not listen, because he has not suitable means to support her, and they forbid them to see one another any more. When the maid heareth this hard sentence, incontinently she falleth sick, and her grief turneth to a sharp fever, whereof she languisheth, and, as it would seem, dies.

"There was great mourning and weeping, for she was dearly loved by her parents, though they crossed her wishes. And so she was laid out, as is customary, with pretty flowers and sweet herbs around her, and the bells were rung as is used for the dead. But the young man, her lover, could not endure the sound of them, so great was his trouble; and so he fled that very evening from the town, intending to take up his abode in a village not far distant. Night overtook him just as he reached a wild and lonely tract, covered with brushwood. Then he hears a voice as it were of a woman in lamentation; whereat, being sorely troubled, he runs hither and thither among the bushes, seeking after the voice. At last he comes up to an open spot, or glade, and there, in the dim light, he sees the virgin whom he loved and left dead, weeping bitterly, and moving onward, but slowly, and as it were against her will. Then he cried out:

"How is this? Thy people are walking over thee as dead. Say, in the name of God, how art thou here?"

"Then said she: 'See that man that is walking before me. He it is that took me away. Lo! I am following him.'

"The young man thereat was struck with wonder; but when he could discern no man through the gloom, and the virgin alone to be seen, he was seized with a sudden joy and boldness, and, making the sign of the cross, he catches her up in his arms, and bears her back again to a house outside the town, and there he conceals her. This done, and the maiden tenderly cared for, he returns into the town, and tells his friends what has happened. Then he betakes himself to the house of the maiden's father, whom he finds sitting with his kinsfolk by the bed of the girl, mourning over his dead. The youth goeth straight up to him, and saith:

"Wilt thou now give me thy daughter whom thou art bewailing?"

"The father, much admiring at this strange request, replies: 'What! art thou a god, that thou canst raise the dead to life, and take her in marriage?'

"To whom the youth: 'Only do thou promise with a willing heart that I shall have thy daughter to wife, and I will restore her to thee alive and in health.'

"The father, pitying the young man, whose head he believed was turned by grief, and in order to soothe him, consented, and gave him his word in the presence of all. Immediately the youth goeth up to the bed, and pulls down the sheet that covered the body. They who stood around then saw a wonderful sight; the similitude, indeed, of a human body, but such as man's hands never made, but the devil's. It was fashioned within of rotten wood, over which was spread a thin pellicle of skin. While all were wondering, the young man slips away, and ere long returns with the young maiden, whom he places in her father's arms. Certes, there was great joy and thanksgiving, and after certain days the lover obtained the desire of his heart, and took the maiden to wife, and (continues the narrator) she was alive and well in my own time."

During the recital of this tale, the Austrian officer puffed volumes of smoke from a meerscham, looking now and then at the young man. When he came to an

end, the Austrian took his pipe from his mouth, and gave a grunt.

"And pray, what became of the devil's wicker-work, with the hide upon it?"

"I don't know," said the other. "But what has that to say to the matter?"

"Oh! nothing," replied the Austrian. "Do you know, I think it must have been like those frames that they hang dresses upon, which you see in the modistes' shops in the Palais Royale." And then he put his meerscham in his mouth again, and puffed away like a volcano. After a while he asked:

"Pray, Monsieur, did you know this Caspar Schott?"

"Ma foi! Monsieur, no. He is dead nearly two hundred years."

"Ach!" said the Austrian. "I thought as much. Well, Messieurs, I will tell you something that happened in my own day, and before my own eyes, or ears, if you will; and I hope you will confess there are as good diableries to be found now as when Father Schott lived, ay, and as veracious." So saying, he took a long valedictory puff, laid the pipe on the table, and spoke as follows:

"It is now over two years since I was quartered with my regiment in Vienna. Amongst the acquaintances which I formed there was a young nobleman who was in the Imperial Guard, the Baron Von Steingraff. He was the sole descendant of an ancient Styrian family, that had lived for centuries in an old castle not far from Salzburg. A finer-hearted fellow could not be found in his Imperial Majesty's dominions, nor a better soldier in his army than Friedrich. Frank and gay as a companion, he was a favorite with his own sex; and a good figure, to say nothing of a good property, made him not unacceptable with old mammas and young daughters. Friedrich, however, seemed to be no marrying man, though he had nothing misogynistic in his nature. When our intimacy had grown into friendship, I happened to banter him upon the subject of matrimony, naming a young lady who was evidently not unfavorably disposed to him. But Friedrich assured me gravely that he had resolved never to marry. 'Not,' said he, 'that I have any disinclination to the state, but that I have long felt the conviction that fate had forbidden me to enter into it.'

"Then he told me how, when a child,

a Zigeunerinn, or gipsy woman from Bohemia, had met him in the wood near the Schloss, and looked into his hand, and said to him: 'Ach! jung Herr, when you go to marry a wife take heed. The way to God's altar lies through God's acre!'

"Well," said I, 'that was a safe prophecy. A man can not well get to the church-door till he walks through the church-yard.'

"Oh!" he replied, 'that was not the woman's meaning. If she spoke true, either I or she whom I would make my wife, should not live for the bridal day. At all events, the belief has so grown with my growth that I can not now reject it. And so I will never endanger my own life or that of one whom I could love well enough to marry. And now, my dear friend, let us never speak on this subject again.'

"Of course we never did; and the matter was soon entirely forgotten by me.

"A year passed by, and I was far away in the north of Germany, when I got a letter from the Baron Von Steingraff. It announced that he had proposed for a young lady in his own country, was accepted, and would shortly be married. 'My destiny,' he continued, 'whatever it be, I must work out; and I could not resist the attractions of my little Roeschen. So come to me as soon as you can. Who knows but your interpretation of the gipsy's prophecy may be the true one?'

"I laughed heartily as I closed the letter. The old story—old as Adam. Woman's tongue had overcome man's resolve. Pretty young Roeschen has beaten the withered old gipsy out of the field; and so saying, I prepared for my journey, and was *en route* the following morning.

"The close of a lovely autumn day found me on the road between Salzburg and St. Gilgen, where it skirts the picturesque little lake of Mondsee, so snugly embosomed in precipitous hills clothed with the pine and the larch. Not far from this stood the Schloss of my friend, built close to the ruins of a suppressed monastery, and pleasantly sheltered by the dark forest upon which the evening sun was now glinting. Thither I worked my way, rather slowly, for the approach was steep and circuitous, so that by the time I stood at the heavy doorway, the sun had set, and the large mass of building was lying in gloom. My visit did not seem to be expected, for I had to knock many times and loudly upon the thick open portal,

before any one came to my summons. At last the door was opened by a man who looked more like a holzknecht or woodsman of the district than the servitor of a well-ordered establishment. He had a lamp in his hand, and appeared flurried. I stated who I was, and desired him to conduct me to his master. To this he made no reply, but shaking his head, motioned me to follow him. We crossed the great hall and entered a small chamber, where the man set down the light and disappeared. 'A strange welcome,' thought I, 'from an intended bridegroom for his best man;' and I looked around me. The room was comfortably furnished: there were cases well filled with books; guns, rods, spears, and hunting gear were hanging from the wall, and an escritoire stood near the fire-place; but no cheerful fire was glowing there—a few half-burned pine logs lay upon the iron dogs on the hearth. When I had completed my survey, an old serving-man entered, and a few words solved the mystery. The day his master had written to me he was suddenly seized with illness, and he was now in the eighth day struggling with fever, and was delirious. The doctor of the neighboring town of St. Gilgen, who was in attendance, had just left him for a short time, declaring that the case was almost hopeless, but that the crisis, which would occur that night, would determine his fate.

"I need not say how this intelligence shocked me. I desired to be shown to the chamber of my poor friend, and announced that I would await the issue, whatever it might be. Messieurs, it is a trying thing to stand beside one whom you last saw in health and strength of mind and body, and to witness a poor shattered being, with flushed face, a burning lip, and a glazed eye, tossing and raving; whose hand does not return your clasp, whose ear does not recognize your words of love, whose eye looks vacantly upon you. I sat down, overwhelmed with emotion. From time to time, through his wild raving, I could distinguish words which told how the bewildered spirit wrestled, as it were, with the horrible phantoms of his disordered brain; with what appalling incongruity did he mingle the scenes of the charnel vault and the bridal-chamber, now calling on his bride to wrap her grave clothes around her, and in a moment, after, with a wild laugh,

bidding the sexton to pledge him a skull of wine. But I must not dwell on this painful subject. When I returned to the small apartment I had first entered, I found all necessary arrangements made for my comfort, but I determined to watch through the night which was to decide all. I felt, however, too nervous and agitated to remain alone, so I entreated the old butler to bear me company. By degrees we became quite familiar. The doctor had returned and sat by the bedside of his patient, who was gradually growing tranquil and lethargic. It wanted now more than hour of midnight; old Klaus threw a fresh log on the fire, and filled my glass from the flask of Hungarian wine that he had placed beside me. I could do no less than return the compliment; and as the good old soul drank it sorrowfully to the recovery of his master, the tear stood in his eye, and he fairly sobbed aloud. I spoke a word of comfort to the poor fellow.

"'Alas! Herr Hauptmann,' said he, 'my mind misgives me sadly. I am afraid every moment that I shall hear the Geistertodtenglocke—God protect us!'

"'The Geistertodtenglocke?' I asked, 'What is that, Klaus?'

"'Ach! Herr Hauptmann, what an old fool I am. I forgot you could know nothing about it.'

"A little pressing got it all out; for grief with men of his class is talkative.

"'I suppose, sir,' said he, beginning his story, 'that you observed the old monastery near the castle as you came up this evening?'

"'I did, Klaus, a fine old ruin, with the bell-tower.'

"'Ay, a ruin now, sir; but it was once a grand and holy place, with its lord, abbot, and monks, and broad, rich lands. Well, sir, a long time ago—I don't know how many hundred years since—the Baron Steingraff of that day—he lived then in the old castle higher up the hills above the Krütensee—had a quarrel with the abbot. The Baron was a fierce and a haughty man, that cared little about church or priest, and the abbot was as haughty in his way, so the feud grew deadlier every day. At last the abbot swore on the holy relics of St. Wolfgang that he would excommunicate the Baron; and the Baron swore upon the cross of his sword-hilt that he would tear the frock off the abbot's back, and drive him and his

monks out of the monastery. The abbot was as good as his word; and so, upon the feast of the blessed St. Wolfgang, he and all his monks walked in procession through the church up to the high altar, and the great book was opened and the anathemas read, and then the bell was tolled, and the lighted candles were extinguished, and so the Baron was excommunicated. Well, the bell was still tolling, and the priests were on their way back down the aisle when the shouts of the Baron and his wild men-at-arms and jägers, and holzknechts rang at the walls, and sledges and great pine beams were battering at the gate. Short work they made of it. One mad fellow seized a splinter of pine wood, and he lit it at the altar, and then he fired the panels and the roof, and the dry wood was all soon in a blaze. The Baron, as if possessed by an evil spirit, seized the bell-rope and rung out a wild peal of triumph; but the abbot walked up to him, dressed in all his robes, and holding up his hands, cursed him in the name of the Blessed Trinity, and said: "*As the spirit of the Evil one peals that bell now by your hands, so shall he peal it when the soul passes from the body of you, and of your son, and of your son's son, in sæcula sæculorum, Amen!*" So saying, the abbot called all his monks, and they went their way down to the lake of Aber; and they built a new monastery where the church of St. Wolfgang now stands. The Baron seized the monastery lands and held them too, for might was right in those days, and built the present castle hard by the ruins of the monastery, lest the abbot and his retainers should rally and seek to regain their old possessions. But they never did, for the abbot was not over loved in the country; besides, the Baron was too powerful to be lightly meddled with.

"Time passed on, and the Baron had well-nigh forgotten that abbot or monk had ever dwelt within the old blackened walls. One wild winter's night, the Baron sat with his retainers in the great hall drinking and reveling, as was their wont. The wind howled in gusts fitfully, and in the pauses a loud knocking was heard at the oaken door, the very door by which you entered this evening, Herr Hauptmann. The Thurmüter, when he opened the door, saw no one, though the moon was that moment shining through the drift of the clouds, but he felt a cold blast sweep across his face. So he shut the

door again, and thought it must have been the storm that had deceived him. The next moment those in the hall saw a monk in a black habit, with his cowl drawn over his head, enter and walk up to where the Baron was sitting. Then the monk threw back his hood, and an old withered face, ghastly pale, but stern and fierce, gazed on the Baron.

"'Tausend sakerment!' shouted the Baron, starting up in rage; 'dog of an abbot what brings you here? Trundle out the shaveling, and set the hounds upon him.'

"'The abbot raised his skinny arm, and said in a hallow and solemn voice: 'This night twenty years you and I met last. I am on my way to the abbey, follow me.'

"'The abbot retired as he came, no one daring to hinder him.

"'Zum henker! to the hangman with him,' cried the Baron, choking with rage, and springing after him. That moment the old bell pealed out with a wild clang from the tower. The Baron in his haste tripped over a stool and fell to the ground. When they lifted him up he was dead. 'Twas said he died of a fit. Maybe so. But that very night one of the holzknechts returning to the village from the *Riesen* up in the hills where he had been working, declared that as he passed the tower he heard the old bell pealing, and saw a procession of monks following a bier, and disappearing within the ruins. Next morning tidings came that the old abbot had died the day before at St. Wolfgang's, but where or when he was buried nobody ever knew."

"Old Klaus paused to take breath.

"'A strange wild story,' I remarked, as I filled his glass. 'Has the ghost-bell been ever heard since that time, Klaus?'

"'I heard my father say, when I was a little boy, that no lord of Steingraff ever died at home here, that the Geistertodtenglocke was not heard tolling as his soul passed from his body,'

"'Pray, did you ever hear it yourself, Klaus? You must remember when the old lord died?'

"'To be sure I do. 'Tis now over twenty years; but he died at Vienna, where he was in attendance upon the Emperor Franz. If he had died at home, I should have heard the bell, I warrant you.'

"This strange tale affected me more than I cared to acknowledge. I am not

naturally credulous, but the shock I had received, added to the weariness of a journey of several days, had, I suppose, somewhat shaken my nerves. I stole up once more to the sick-room. Friedrich still slept heavily. To my inquiry the physician answered with a shake of his head.

"'Tis the sleep, I fear, that will wake in death. An hour will decide; but be prepared for the worst.'

"I returned to the chamber below, and sat down very sadly. The thought of the young girl, whose cup of happiness was, in all probability, so soon to be dashed from her hand, came upon me. Then I questioned old Klaus, and learned that she was all her lover could desire. Since his illness she had entreated to be permitted to attend upon him, but her request was denied; and intelligence was constantly transmitted to her of the state of the young Baron.

"'Ah! Herr Hauptmann,' said Klaus, 'should my lord not recover, I fear it will go hard with the young lady. There will be two burials instead of one bridal; and two noble houses will come to an end, for each is an only child.'

"Our conversation gradually flagged, in spite of our efforts to keep it alive. The dark, still, solemn night deepened around us. There was not a sound to be heard, within or without, except the ticking of the clock in the great hall. How sharply every beat smote upon my ear, meting out to me, as it seemed, the life of one whose existence was now measured by minutes, not hours, or days, or years. How slowly and painfully the moments of that sad night wore on. I shall never forget it, were I to live through a thousand lives. Poor old Klaus at last dozed off in his chair. The suspense became intolerable. I rose and paced the room. A book lay open upon a little table, as if some one had been reading it recently. I took it up; it was the Bible; and I read the fourteenth verse of the fourth chapter of the Epistle of St. James: "*Die ihr nicht wisset, was morgen seyn wird. Denn was ist euer Leben? Ein Dampf ist es, der eine kleine Zeit währet, darnach aber verschwindet er.*" Then I felt, indeed, both the uncertainty and the transitoriness of life. That we know not what shall be on the morrow. That life is as a vapor that appeareth for a little time, and passeth away. I laid down the book. The clock struck, ringing out upon the silence, and

I counted the strokes—*one, two*—up to twelve. Then all was silent again. The night wore past; what shall the morrow bring forth? Who shall tell?

"'Lord have mercy upon us,' cried old Klaus, waking from his sleep; 'DIE GEISTERTODTENGLOCKE!'"

"A clang of a bell smote upon my ear, wild, fitful, and irregular, not as human hands would ring it; now loud and quick the peals, now faint and slow. I rushed from the room, and in a moment was in the Baron's chamber. The physician stood by the bed-side; his hand was on the patient's heart; I read all in his face. 'It is all over,' said he; 'he is dead.'"

The Austrian officer ceased speaking, and covered his eyes with his hands, as if overcome by his feelings.

"Ah! how sad and how strange," said the litterateur, after a few moments' silence.

"Not at all strange," replied the man of the introverted vision.

"And what became, pray, of the poor young lady?" asked our host; "did she die?"

"By no means," answered the Austrian, "she married before the year was out."

"Peste! what a heartless jade," cried the litterateur indignantly.

"Pardon, monsieur," returned the Austrian gravely. "There was never a truer heart than little Roeschen's; I had the pleasure of being at her wedding."

"What! and your friend the Baron not cold in his grave?"

"I should think not. On the contrary, he was present on the occasion, and any thing but cold."

The Austrian re-lit his meerschaum, and commenced to puff with great deliberation. Seeing us all somewhat puzzled, he laid down his pipe again, and said:

"Messieurs will permit me to explain. It turned out that the Baron was not dead, but in a trance, which lasted for many hours. When he awoke, the fever had passed away. He recovered in due time, and led his little Roeschen to the altar, walking through the church-yard to the church door, and so fulfilling the gipsy's prophecy."

"Well, but the Geistertodtenglocke. How do you account for that?" asked our host.

"Oh! nothing easier. You must know that the bell in the tower was used on ordinary occasions to summon the serfs and retainers to work, and to meals. It happened that a part of the bell-rope had been broken a few days before I arrived, and was mended by a rope of twisted hay. The door of the tower had been left open on the night of my vigil, and it so chanced that a cow strayed in and commenced to eat the hay-rope, and by her efforts, set the bell tolling—that's all."

There was a general explosion of laughter, in which all joined except the Austrian, who never even smiled, and the man with the introverted vision, who looked as if he had received a personal insult.

"Well," said our host, "we must at all events admit that the ringing of the bell just at the right moment was a very remarkable coincidence."

"Just so," replied the Austrian. "After his discovery, I questioned my friend about the family legend. He confessed that the people for many generations, believed in this foolish tale, which, after all, had some foundation. The feud between the Baron and the abbot, the burning of the monastery, the ringing of the bell, and the imprecation of the abbot, were all historically true. It was true also, that just about the time the old Baron died of apoplexy, the abbot died of old age, and the monks buried him secretly in the place where he had lived so long, tolling the bell which scared the peasant at night. As for all the rest——"

"Ay, sir, as for all the rest," asked the man with the introverted vision, in a tone of triumph.

The Austrian looked at his interrogator for a moment in silence, and then replied:

"The folly and the ignorance of one half the world is only equalled by the craft of the other. Superstition and the love of the marvelous made men in old times ready to believe any thing. I am not sure that we are much improved in our own days in this respect. A fool and a knave, with the aid of a few 'strange coincidences,' can beget so many ghosts and goblins, that an honest man of flesh and blood can hardly walk through the world without knocking his head against them every hour of his life. Messieurs, it is growing late. I have the honor to wish you good night."

From the National Review.

MUSIC AND THE LYRIC DRAMA.*

IF all nature were suddenly struck dumb, we should miss the familiar tones of a voice that speaks for all, but is heeded by the few; if the wind breathed its last amongst the branches, the clouds rested like a pall over the skies, the brook leapt no more from the mountain, the river settled in its bed, and the sea became one vast glacier — then, “to hear no more blithe voice of living thing,” would complete the scene of despair and desolation. Such a plague of silence over the land would be but poorly made up by the most exaggerated looks and gestures; and the inevitable fate of the race would be, to sink into idiotic savages, as those wretched criminals have done who have been cruelly condemned to suffer the horrors of the silent system. Turning from such a nightmare to the picture as it exists, how completely opposite the scheme of nature is — how deeply sounds and vibrations lie at the root of every thing! In many instances this is evident enough; and perhaps, if we could only detect it by tests sufficiently delicate, it might be shown that all sensation, and even the very life of the earth and all its parasites, depend upon vibrations. Why else should it revolve and partake of the vibrations which the sun sends forth in every direction? It was a fine thought of the old Egyptians to say that their colossal Memnon statue greeted the rising sun with a song of gratitude and worship, when they heard a mysterious sound spring from the granite figure as the first ray touched it. Indeed, to repeat a thought as old as Orpheus and the hills, all nature is attuned, and there are moments when there seems to be “music in the air,” though it be our fancy that lends enchantment to the sounds which others may call mere noises. But as to that, the whole art and mystery of music

falls to the ground without the divine faculty in the listener. Still, it may be worth remarking that, though there is all the difference in the world between “making a noise” and discoursing most excellent music, yet these two opposite poles in the sphere of the senses — these antipathies even — are related. See how the bees rush round a performer upon a brass kettle! they must find some pleasure in a sound that to us is distracting. All brutes seem to relish their sounds: some fishes, they say, can hum a tune of their own, and pet fishes learn the sound of the dinner-bell as acutely as their betters; frogs and turtles are gifted with an affectionate croak; insects seem to perform an *obbligato* accompaniment whenever they fly, the gnat like the highest notes of a violin, and the beetle’s hum sounding like the rich base of a violoncello. The serpent is a connoisseur too well known for his musical taste to require our special attention, though it is odd that he, of all the brutes except the goose, who is perhaps a critic also, should be best able to hiss. But of all nature’s pupils, commend us to the birds. What an exquisite fancy seems to prompt their florid cadences, varied, too, sometimes with tones that breathe a wonderfully human expression of sentiment! There is the favorite refrain of the nightingale, quite a simple passage of a few tones repeated slowly, as if he “thus complained,” which has a singularly touching quality — “most musical, most melancholy.” In all this natural music, wild but yet expressive and characteristic, man was not slow to perceive a charm more pleasing and fascinating than words spoken. He could feel there was something in sweet sounds transcending the voice even of eloquence and love — something that seemed to fill up the measure of his ecstasy when words alone failed him. It seems natural to conceive that primitive music was either a direct imitation of the songs of birds, or that those songs which even-

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tuallly became the national songs of people living in clans were a spontaneous gush of vocal expression suggested by the birds. We took the hint, and enlarged upon the theme thus beautifully set us by nature. So it is that, as all the songs of birds are set in a minor key, all national airs have been cast in a similar mode; and the same may be said of those old songs which seem to be indigenous in every thoroughly rustic country, and serve for ages as the vehicle for words which change while the song retains its character. The strongest resemblance has been traced by musicians throughout the melodies which belong to the various peoples of the world, from those of the British Isles to the islands of the Indian Ocean, the Pacific, and even China. It is remarkable also that, however rude and informal these airs or chants may be, there is generally in them a distinct character, which the most cultivated ears are the most alive to. Hence it has happened that the greatest composers have constantly taken these as subjects for their finest works; and thus it would be difficult to say how much modern music is indebted to sources of this kind. National airs and old songs seem to contain the roots of a universal musical language; they are modulated like the dialects of different races. No doubt it must be admitted that musical idea has grown by what it fed on, but this less as regards the form than the expression of the music; the coloring has become more sensuous, just as we see the change from the painting of Etruscan times, or of early Italian art, to Titian and Rubens. Most of the attempts of savages at musical expression are marked by monotony; there is rarely any sign of musical cadence, but expression is given by uttering the sounds piano or forte, in slow or rapid time; still, we must suppose that even savages have their appropriate music. The Polyne-sians, as adults, could not be taught to sing by the missionaries; but the rising generation show considerable aptitude, and so do the Hottentots and Caffirs. The Sheshonès, a race of nomad savages in the region of the Sierra Nevada, who have no sort of worship and no name for God, have a rather remarkable musical faculty. M. Rémy is our authority for this; and he relates how he heard a mother singing every evening a wild song, most expressive of grief, over the

grave of her son, who was a young chief. M. Rémy gives the notes of this air; they form a regular subject of seven bars, in common time, with proper pauses, and in the key of D minor. The natural expression of this short strain is really so true and beautiful, that it might well form the theme of a most pathetic composition, and the world might wonder at the genius of the composer without suspecting that savage nature was his pattern. Instances of native music like this, of which it would not be difficult to find others, incline us to believe that singing without words is part of our nature; that the pure tones touch a chord in unison with the emotions by a subtle influence of their own; and that, when music is, as we say, "wedded to immortal verse," something of its native power is rather lost than increased. We shall not fail in homage to the lyric art, if we observe here, that instrumental music has shown the way to the immense development of the art in every direction; it has taught the voice, and altogether enlarged the sphere of our musical sense, at the same time affording to great thinkers in music means of expression which are far less limited than the voice, even when united to the noblest language. The symphony, which may be regarded as the most intellectual and poetic form of music, inasmuch as it is the result of modern cultivation of the art, indicates the highest reaches of musical thought; and we may recognize in the very marked appreciation of this pure and grand style which is noticeable more and more in the audiences of the present day, that decided advance and refinement in musical taste which should belong to an age of universal culture. Of course, nothing will ever extinguish the native charm of the human voice; but this is a thing apart, as different from the music we refer to as the poetry of a ballad is from that of a grand epic. Beethoven, as if mindful of the fine effect of voices, attempted to combine them in his ninth symphony, and spoilt his work. Beethoven is a good example in point, because the bent of his genius was certainly not toward the voice. Although he did conceive two songs of beauty unsurpassed—the *Adelaide* and Florestan's hymn of gratitude in the *Fidelio*—it is after hearing one of his symphonies that we can say, with Coleridge—"Some music is above me; most music is beneath me;"

so much does his music elevate the soul, and breed a sort of contempt for music of a less lofty mold.

Ancient vocal music must have been of the simplest kind. We may trace the infancy of the art in the war-chants of the first poets, with their wild accompaniment of noises suggested by the thunder and the tempest, and imitated by the drum, the trumpet, and the shrill flute; the harp, which was the special instrument of the bards, may have been borrowed from the twanging of the bow-strings. It is easy to see how the most tempestuous passions could be expressed by these lusty instruments, especially when they were employed by hundreds and even thousands. There was no lack of the spirit-stirring quality in this music, and it is remarkable that these primitive musicians established the type of martial music which is permanent to the present time. Our greatest composers, in lavishing all their resources upon marches and processional music, have enriched the sounds, but they have never attempted to alter their character; they have never dreamt of dispensing with the rude elements. Imagine, for example, what would become of the noble march in Spohr's *Weihe der Töne* if deprived of its brass and its instruments of percussion? what would be the effect of a similar emasculation upon Mendelssohn's "Wedding March"? or, to take an instance from a still later composer, Meyerbeer, in his processional music of the coronation-scene in the *Prophète*, where he has intrusted his effect mainly to the trombones, the ophicleides, and the drums—and with an expression surprisingly appropriate to the pomp and circumstances of the scene? Another example of natural expression by means bold and rugged as a sketch in the marble by Michael Angelo, is in Handel's triumphant march-chorus from *Judas Maccabæus*, "See, the conquering hero comes," music so completely expressive that not an electioneering brass band, inspired with the hottest political animosity, but resorts to this as the only means of musical expression equal to the occasion. Perhaps the most striking instance of grand musical expression, obtained by means so simple as to be almost archaic, is in Handel's "Dead March" in *Saul*. Here, while the solemn thunder of the drums rolls on, the plaintive cry of flutes is heard singing together in the simplest harmony, like pairs of angel-voices.

Even without the trappings and ornaments of woe, the bare music is quite sublime; it expresses a sympathy from above and touches all hearts. No wonder that this noble classic of the art divine has been so universally accepted as the expression of manly sorrows at a soldier's death. The intention of Handel was no doubt to write music which might have been played by the ancient musicians, and his conception appears to us so just that the music is entirely removed from any particular associations of style—it is indeed, music of all time.

We have already alluded to the spontaneous origin of national songs, and the radical existence of them in our nature; those songs of Zion which the captive Jews in Babylon are made to sing when, as told with such exquisite pathos by the Psalmist, they said: "how shall we sing the Lord's song in a strange land?" were the analogue of the native lament of the savage Shoshoné mother. We can go back to no more early classics than these, and those songs of the Greeks in their Lydian, Phrygian, and Doric modes, the precise meaning of which has never yet been discovered. The songs of the Hebrews are said to be still preserved and used in the synagogue; some of them were heard in public about twenty years ago, when Mr. Leo arranged them to modern notation, but we must conclude that they have been considerably modernized. Dr. Burney gives some transcriptions of Greek melodies from the ancient notes; but these, again, amount only to music of the rudest kind; though, it is true, allowance must be made for our reading, which is probably very different from that of the Greeks; for there were no less than sixteen hundred signs to be learnt by the young musician. What we gather from much laborious writing on the subject is, that though the Greeks theorized vastly upon music, and really did establish scales as we understand them, in the *diatonic*, the *chromatic*, and the *enharmonic* genera, knowing the octave also, and dividing it into two groups or *tetrachords*, yet their proficiency as practical musicians was very low. The effects they obtained were by employing large numbers of singers, flute-players, and harpers together. Thus, by multiplying the sound in unisons, and by the favorite and very obvious use of the octave, arising naturally from the singing together of male and female voices,

called *magadizing*, a very imposing effect might be obtained with very simple airs. Verdi has used the same artifice very effectively in several of his choruses, especially in the *Nabucco*, where the chorus of the captive Jews in Bablyon, "Va pensiero," occurs. The simple harmonies of thirds, fifths, and fourths were no doubt, very accurately adhered to and formed the important part in the music for the flutes, an instrument highly esteemed, and for which, the Greek performers paid enormous prices. The harp, which was so generally used that Homer describes Achilles soothing his lover's woes by singing and playing on it, and makes Hector upbraid Paris for "his curling tresses and his silver lyre," does not seem to have taught the Greeks the use of full chords of a more sustained character; this was an invention reserved for after-ages in the organ and bow instruments. It might have been expected also that the Greeks would have learnt something of the harp from the Egyptians; for the instrument was seen by Bruce the traveler, painted on the walls of Thebes, of the full size of the modern harp, with thirteen strings. The Egyptians also had a kind of guitar with two strings, capable of being played by stopping with the fingers of the left hand; but of this the Greeks appear to have had no knowledge. All their ingenuity seems to have been spent upon works of art, and in conferring beauty upon useful objects, in molding weapons, armor, personal ornaments, implements, and vessels for domestic use. It is strange that their invention was directed so little toward musical instruments, and that a people so completely alive to the charm of ideality and beautiful form as to leave to the world the models of an excellence that has never been surpassed, if ever approached, should not have struck the spring of music in its very highest form of expression. But so it is that, while in other walks of expressional art we seem to be always conscious of a struggle to recover lost ground, as if the high reaches of art in the past had left us exhausted with the effort, in music we can find no classic antique and no renaissance. Its classic age began scarcely a century back, at a time when, it is singular to observe, the worst taste and a universal decadence in plastic and pictorial art prevailed. Those examples of antique music which we have endeavored to describe

were as archaic as the first efforts of antique sculpture in carving the rude tree-trunks those, "*mœsta simulacra Deorum*"—which were really the archetype of the grandest statues created by the same people; yet music never emerged from its barbaric germ, it never got beyond its primitive aspiration and its rude instruments, although surrounded by a world of exquisite beauty and refinement. It did not even keep pace with the drama, the poetry, and the eloquence of the age. It is true that we may choose to regard the very simple accompaniment of music with the drama as a proof that the Greeks at any rate perceived the influence of music as an aid to expression. This, indeed, has been adduced by some as the earliest form of the lyric drama; but it is impossible that a few flutes and a lyre could have made the musical feature any thing but a subordinate adjunct to the language and action. Indeed, had the Greeks the musical means which we possess, it is not to be supposed that they would have given a musical version of the *Hecuba*, any more than we should attempt *Hamlet* as an opera with the words of Shakspeare. It is the peculiar genius of the lyric drama that the words are really of no importance, and that the music only takes an accent and emphasis from them; so that absolute nonsense-verses might be used, provided they scanned with the rhythm of the music. Mr. Sutherland Edwards assures us, for example, that the opening chorus in *Robert le Diable* is traditionally sung at the Grand Opera of Paris to the words:

"La soupe aux choux se fait dans la marmite;
Dans la marmite on fait la soupe aux choux."

Porpora narrowly escaped the Inquisition but for his avowed ignorance of Latin: he usually added a *non* or a *si* to the libretto when he wanted another note, and thus innocently furnished his choir with the Belief, beginning with *Credo non credo, non credo in Deum*. Returning, then, to the music of the Greek stage: the language was in itself so accentuated and formed naturally in musical intervals, that, with the kind of chanting or intonation practiced in reciting all poetry, it was sufficient to give so far a lyric character to the drama; and for this very reason J. J. Rousseau remarks, they could have had no lyric drama as we understand it.

Their poetry was musical, whilst all their music was declamatory. The chorus, however, was an element which we have borrowed, to make a most important feature in our operas and oratorios, though it, again, had no more pretensions to be musical than the rest of the drama. The celebrated Mendelssohn set himself the task of composing music to the *Antigone* and the *Œdipus Tyrannus*. Many will remember the production of the *Antigone* at Drury Lane Theater, now some years ago, when the late Mr. Vandenhoff and his daughter performed in the tragedy the parts of Creon and Antigone; and the music was very efficiently rendered, under the direction, we believe, of Mr. Benedict. The *Œdipus* was more recently given, without scenery, at Covent Garden Opera-house, as a morning entertainment, when the poem was read in English by Mr. Bartley. After hearing the *Antigone* several times, as it was admirably represented according to all the proprieties of the Greek theater, and with elaborate attention to costume, it was generally acknowledged that there was a certain fascination about the work; but few musical persons could attribute their enjoyment to the music, excepting the choruses, which were not cast at all in the antique model, and are therefore out of our consideration just now. Where Mendelssohn followed the antique was in accompanying the spoken dialogue with the sound of flutes and other wind instruments of the woody *timbre*; and here, it must be owned, the effect was generally feeble to puerility, and frequently distracting to a ludicrous degree. The result served to confirm the opinion of Rousseau that the lyric drama, which is entirely the growth of a different civilization, belongs to a third species, different from both tragedy and comedy.

Music amongst the Romans need not detain us. It was carried to a pitch of extravagance, as regards numbers of players and singers, greater than amongst the Greeks, but without any indication of increased variety or refinement. Convivial songs of a national origin were no doubt greatly in vogue, and singing was a passion with them. Nero was one of the most noted amateurs; and, whatever his subjects may have thought of their emperor's voice, he is said to have prided himself so much in his singing, that he lay on his back with a heavy plate of

lead on his stomach to strengthen his wind, took strong medicines, and abstained from food injurious to the voice. Five thousand singers and players are said to have formed his private band. But the gross luxury and barbaric display of the empire were not more congenial to the spirit of the lyric art than the stirring animosities and great deeds of the republic at home and abroad. Gorgeous spectacle at all times found favor with the Romans. The drama, with music in the simple form copied from the Greek, might have been developed into something more lyrical, had it been received by a people in a more thoughtful mood, and less ambitious to be the masters of the world. As it was, music was doomed to a long sleep, not to be wakened by the songs of the primitive Christians, for they had been heard of old amongst the Hebrews in Judea; nor by the airs taken from the pagan hymns, which formed the music of the Catacombs in Rome, just as the pictures of Orpheus were converted into portraits of Christ. The music of the Byzantine Christians was completely adopted from the old Greek style; and in that which St. Ambrose arranged in the fourth century, and which is known still by his name, the ancient terms Dorian, Phrygian, etc., were employed. The Gregorian chant, in the end of the sixth century, was an enlargement of the same music: and though antiphonal singing, introduced into the churches even earlier than Gregory the Great, may have suggested some variety, such as the *fugue*, and encouraged the indulgence of expression from the two parts of the choir, yet all this music retained the regulated stamp and rhythmical character of the ancient music; the imagination was not allowed to interfere with this dogmatic music. Still there was going on a decided though slow advance in the art. In the ninth and tenth centuries the written language of sound was being perfected by marking notes in the first seven letters of the Roman alphabet upon as many lines, these being simplified again by Guido D'Arezzo into four, by using the spaces; and the system being still more improved by the invention of Franco of Cologne for indicating the relative value in time of each note—the system, indeed, which is that of the present day. At the same time discoveries were being made in effects of

harmony obtained by the organ. Simple as that instrument must have been in its early form, consisting perhaps of not more than two octaves, it would naturally prompt the player to conceive in harmonies, by giving him the means of uttering several notes together. Wolstan has recorded a wonderful description of the organ erected by St. Elphegus, Bishop of Winchester, in his cathedral, in the tenth century. Music, then, was showing its vitality and asserting its growth from the time that the cold ritual of the pagan and Jewish religions was giving way to the teachings of a belief more affectionate and sympathetic. The worship of Christianity developed tones of adoration and gratitude which no burnt-offerings and libations, and no recited hymns or dithyrambic choruses, improvised in the moment of wild excitement—not even the responsive chant of the people to the Levites—could ever have prompted. Then came the *mysteries* and *moralitys* of the medieval times, which, though no doubt disfigured by much of the coarseness and incongruous buffoonery of the people, tended to unite the dramatic feeling more intimately with music; for these entertainments were generally conducted chiefly by the chapel-masters and other officials concerned in the ceremonies of the church. The musical capabilities had enlarged sufficiently by the middle of the fifteenth century to render intelligible a drama played in music. "The Conversion of St. Paul," was the subject of one of the earliest mentioned by Mr. Edwards, as played at Rome in 1440; another was the story of Abraham and Isaac, performed at Florence in 1449; and afterward profane subjects were treated operatically, the story of Orpheus being a favorite. The first *Orfeo* was also given at Rome in 1480, the libretto being written by Cardinal Riario, nephew of Sixtus IV., the theater being then under the patronage of the church, and deriving its literature, in fact, from the highest dignitaries; Clement IX. was himself the author of seven libretti. The music of this early operatic work was by Angelo Poliziano; it must have been very different from the lyrical music of our day, for even when Monteverde wrote his *Ariadne* and his *Orfeo* for the court of Mantua, in 1606-7, the orthodox of the profession were roused to a violent indignation against his innovations in the

art. Monteverde seems to have been at the same time the Costa and the Verdi of his day; for he enlarged the orchestra to many players on all the instruments known. Besides this, his music took the most daring licenses, defying all rules but nevertheless evidently pleasing the public; and, what is remarkable is, that to this day his innovations remain, as they were speedily accepted by the musicians of his own time. In the earliest *opere musicali*, the music consisted of choruses in the style of madrigals, and hymns quite in the style of the church, with instrumental music between the acts. The dialogue itself, being spoken as recitative, was a later invention of Emilio del Cavaliere, for his opera *Rappresentazione dell'Animo e del Corpo*, performed at Rome in 1660. The instruments were played behind the scenes in this performance; and the choruses, grave as they are in style, were sung with dancing. There is no sort of *air* for solo voices in this work, although the body, the soul, pleasure, and the world, were impersonated. The scenery was a feature which received very great attention in all these early operas, Baldassare, Peruzzi, and other eminent painters, worked as scene-painters; and Vasari relates how Titian himself was so completely deceived, that he climbed on a ladder to touch the painting before he was convinced the architecture was not solid. The supernatural played also an indispensable part in the various forms of dragons, many-headed monsters, winged horses, and the whole round of elemental phenomena being all conjured up by some magic wand. These preposterous properties retained their place on the opera stage even after the time of Gluck, and were positively acceptable to audiences whose tastes inclined to the miserable classicality of the *rococo* period in art. Happily the noble recitative of the modern Italian school has made the dialogue intelligible and musical; and the "*jardin de mythologie*," as Jean Jacques calls it, has been swept from the opera stage. The invention of recitative certainly exercised a very important influence in the progress of the lyric art. It must have contributed mainly to making the music, essentially dramatic, more sympathizing with the characters, and more distinctly expressive of the sentiment. Monteverde evidently was at a loss for some means of this kind when he

devised the plan of allotting special instruments to each personage in the drama. In his *Orfeo* the violas played to Eurydice, the base violas to Orpheus, the small organ to Apollo, the trombones to Pluto, while Charon had a guitar accompaniment. This, indeed, was one of the innovations of this remarkable man which has frequently been adopted, or, perhaps, reinvented by the moderns, even so late as in Mr. Balfe's *Bravo's Bride*; by Hoffman, according to Mr. Edwards, in his *Undine*, and by Richard Wagner in his transcendental operas. The attention of Cavaliere was directed to the same point of expression; and in training his chorus-singers he is said to have insisted upon appropriate expression. Florence at this time was the center of Italian art; and the heads of the great families of the Strozzi and the Corsi, and Giovanni Bardi of Vernio, encouraged the musicians; amongst whom we find assembling at their palaces, Vincent Galileo—the father of Galileo the renowned astronomer, who had himself acquired celebrity by having set Dante's episode of *Ugolino* to music for one voice—with Peri, Mei, and Caccini. The first complete opera seems to have been the *Dafne*, composed by Peri and Caccini to a poem by Ottavio Rinuccini, and performed first in the Corsi palace in 1597. Recitative was freely used in this work; and this has led to the divided honors of the invention between Jacopo Peri and Cavaliere. It was, however, "not adapted to rapid and animated utterance; it is a sort of languid and drawling melody, divested of rhythm; but at that time it must have had a novel and striking effect, and argued great genius and originality. Before that period there was nothing in music that could have suggested it. The only semblance of an air in this opera consists in certain Anacreontic verses sung by one of the characters, the music of which is preceded by a short symphony, and partakes of the dull and psalmodic character which generally belonged to the airs of the day, excepting the national airs, which then had not attracted the notice of musicians." (Hogarth's *Musical History*.) The opera came rapidly into fashion all over Italy. Pietro della Valle describes how a party went about in a cart at the carnival at Rome, in 1606, singing and playing a drama, the people following in crowds, and insisting on a constant repetition of the piece. Della

Valle also speaks of the national airs and ballads of various countries, which in his time were being sung at Rome. He formed a collection of Persian, Arabian, Turkish, and Indian tunes, besides Neapolitan, Spanish, Portuguese, and Sicilian songs. These are, it is to be feared, lost, with many of the compositions of men whose names and deeds in music are only known. The story of Della Valle reminds us of the delightful description given by Lady Morgan of a similar musical escapade performed by Salvator Rosa at the carnival at Rome in 1639, himself the principal *maschero* and *improvisatore*. Salvator was a composer of as much *verve* as he was painter, and he wrote his own poetry as well. His music-book is still preserved, full of airs by Carissimi, Cesti, Luigi, Cavelli, Legrenzi, Capellini, Pasqualini, and Bandini, with eight complete cantatas, the work of the painter himself.

But we must leave opera in Italy—at Venice, where in 1574 Claudio Merulo, organist of St. Mark's, had set the example by writing music to a drama by Cornelio Frangipani, destined to be eclipsed by the successes of Monteverde with his *Orfeo* and his *Arianna*, and of Stradella, the great singer and composer, the story of whose romantic escapes from hired bravos at Rome, Turin, and Genoa, made him a celebrity as well as his music; at Florence the *Dafne* and the *Eurydice* of Peri and Caccini being performed in state before Henry IV. of France and Marie de' Medici; another *Dafne* by Gagliano at Mantua, where Adriana Baroni—the daughter of the Leonora whose praises Milton sang in his Latin Odes "ad Leonoram Romæ canentem"—was prima donna; at Padua the *Berenice** of Domenicho Freschi, far outstripping in its blaze of triumph any thing in the shape of *spectacle* lavished by the Opera of Paris upon the *Juive* of M. Halévy, or conceded to M. Meyerbeer's demands for his *Prophète* and *Dinorah*; at Rome, where the *Jephtha* of

* The account of this spectacular opera gives a good example of the extravagance of the time. There were choruses of one hundred virgins, one hundred soldiers, one hundred horsemen in armor, forty cornet-players, six trumpeters a-foot, and six on horseback; as many drummers, ensigns, sackbuts, great flutes, minstrels playing on Turkish instruments, octave flutes, pages, sergeants, cymbalists; twelve huntsmen, twelve grooms, twelve coachmen, two lions led by Turks, two elephants by two others, Berenice's triumphal car drawn by four horses, six other cars with prisoners and spoils, and six proces-

Giacopo Carissini* was exciting the enthusiasm of the Romans and of his pupils, to whom, when they spoke of the graceful ease of his melodies, he said: "*Ah! questo facile quanto e difficile!*" at Naples, Bologna, Messina, all of which places had their opera by the middle of the seventeenth century — to observe what was the condition of the art in Germany, France, and England.

"At Dresden," (writes Mr. Edwards,) "on the occasion of the marriage of the Landgrave of Hesse with the sister of John George I., Elector of Saxony, the *Dafne* of Gagliano, performed at Mantua in 1608, was translated by Opitz, the father of the lyric stage in Germany, as he is called set to music by Schutz. It was not, however, until 1692 that Keiser appeared and perfected the forms of the German opera. Keiser was scarcely nineteen when he produced at the court of Wolfenbüttel *Incene* and *Basilina*, the former styled a pastoral, the latter an opera. It is said reproachfully, and as if facetiously, of a common-place German musician in the present day, 'he is of the Wolfenbüttel school,' just as it is considered comic in France to taunt a singer or player with having come from Carpentras. It is curious that these places were the cradles of opera in their respective countries. Lulli generally is said to have introduced opera into France, and is, indeed, represented in a picture well known to Parisian opera-goers receiving a privilege from the hands of Louis XIV. as a reward for his services. This privilege, however, was neither desired nor obtained in the manner supposed. Cardinal Mazarin introduced Italian opera into Paris in 1645, when Lulli was only twelve years old; and the first French opera, *Akibar, Roi de Mogol*, the words and music by the Abbe Mailly, was brought out the year following, in the episcopal palace of Carpentras, under the direction of Cardinal Bichi, legate of Urbau VIII."

Cambert was master of the situation in French opera, his *Pastorale en Music* and *Pomone*, with words by the Abbé Perrin,

sion coaches. The scenery and machinery were on a huge scale, representing forests, in which, with a hundred real live horses, the chase of the wild boar, the stag, and the bear were displayed. At the end of the third act an enormous globe descended from the sky, which opening, divided itself into two other globes suspended in the air, and on them were allegorical figures of Time, Fame, Virtue, etc.

* Carissini was *maestro di capella* of the German College at Rome, and became celebrated about 1635. Many of his works are preserved in the British Museum, and in a collection of Dr. Aldrich, at Christ Church, Oxford, who has adapted some of his motets to English words. His music is described as more melodious and pathetic than any of his time. Handel took his chorus "*Plorate filie Israel*" for the subject of a chorus in *Samson*, "*Hear Jacob's God.*"

being the first publicly performed in Paris, in 1671. But Lulli, brought from Italy as page to Mdle. de Montpensier, got into disgrace by writing a scandalous song about the princess, and after being degraded to the scullery, was narrowly rescued from a worse fate on the Place de Grève by Madame de Montespan. He became, partly through his buffoonery, and partly by his musical talent, the favorite of Louis XIV., and contrived to oust Cambert and Perrin, just as their *Ariadne* was about to be performed, and then produced his first opera, being the seventh on the French stage, the *Cadmus* and *Hermione*, 1673. Cambert, driven out by this intrigue, made his way to London, was received with much favor by Charles II., and made director of the court music, retaining the post until he died. Any thing French was welcome at this court, and French music had been more or less imitated even by Matthew Lock, who was the court-musician, and who composed the music for the public entry of Charles II. at the Restoration. The music for *Macbeth*, though showing here and there marks of French triviality, was the result of riper thoughts and more independent spirit, consequently it is by that alone that Lock holds his place amongst the modern musicians. But it should be understood that there was much good church-music in England, with glees, madrigals, and catches, for half a century before. Shakspeare's plays were no doubt acted with music to the pieces he has introduced evidently with that intention; and Ben Jonson, the poet-laureate, wrote poetry for masques, the music of which was by Henry Lawes and the *mise en scène* by Inigo Jones; Queen Henrietta often playing the principal character. Then there was Milton's *Comus*, also with music by Henry Lawes, who was retained as musician by the Egertons at Ludlow Castle, who played the part of the swain Thyrasis, and is eulogized by the poet, himself well acquainted with the music of Italy, in the lines where he is made to put off his sky-robcs and take the likeness of a swain:

"That to the service of this house belongs,
Who, with his soft pipe and smooth-dittied
song,
Well knows to still the wild winds when
they roar,
And hush the waving woods."

[TO BE CONTINUED.]

From the British Quarterly.

THE RECENT REVOLUTION IN THE PAPAL STATES.*

Few episodes in the checkered history of the Papacy are more fraught with interest and instruction to a thoughtful observer than the late revolution in the States of the Church. How marvelous and unexpected have been many of the incidents of that memorable struggle. The eldest son of the Church, to whom, a few years before, the Pope was indebted for restoration to his throne, and by whose bayonets his dominion had ever since been upheld, suddenly throwing off the mask, and proving his most deadly foe. A Church which arrogates to itself the exclusive favor of God, and unchristianizes all others, unsheathing the sword, in the middle of the nineteenth century, to force back men to a temporal sway which they had cast off as tyrannical and cruel. And not less marvelous is the fatuity with which that same Church continues to set herself against the public opinion of Europe, avows her inflexible opposition to the cause of civilization and progress, and uses the most unscrupulous means to regain her lost possessions, not excepting the encouragement of brigandage of the most disgraceful kind.

We are disposed to think that a brief sketch of the conflict between the Pope and his subjects, from the first outbreak in the Romagna down to the present time, will not be unacceptable to our readers.

The victories of the allied forces of France and Sardinia, at Magenta and Marignano, in the summer of 1859, were

≡ *The Court of Rome and the Gospel.* Translated from the Italian of the Marquis Roberto D'Azeglio, with a Preface by A. H. LAYARD, D.C.L. London. 1859.

Rome; its Rulers and its Institutions. By J. F. MAGUIRE, M.P. Second Edition. London. 1859.

Rome in 1860. By EDWARD DICKY. London. 1860.

Kirche und Kirchen; Papstthum und Kirchenstaat, (The Church and the Churches; the Papacy and the Papal States.) By J. V. DÖLLINGER. Munich. 1861.

L'Eglise et la Société Chrétienne en 1861. Par M. GUIZOT. Paris. 1861.

VOL. LVI—NO. 2

immediately followed by the evacuation of the States of the Church by the Austrian garrisons. Upon this, several of the States revolted from the Pope, and Victor Emmanuel was at once proclaimed King, or Dictator.

Just before the commencement of hostilities, the Papal government had been informed by the Austrians that it was not possible for the Imperial troops to quit Bologna without allowing ample opportunity for the entrance of a Pontifical garrison. The sudden and repeated discomfiture of the Austrians rendered it impracticable to adhere to this engagement; and no sooner were the cities of the Pope's territory freed from the presence of their foreign oppressors, than the risings of the Italians commenced. On the thirteenth of June, Bologna took the lead by proclaiming Victor Emmanuel king, and celebrated the auspicious event by a general illumination. Two days afterward, the towns of Forlì, Faenza, and Imola, followed the example thus set them. On the seventeenth instant, Rimini, Cesena, and Ravenna pronounced for the national cause. The day following, Perugia and the districts in the same neighborhood threw off the Papal yoke; and a few days afterward the telegram announced that the revolution had extended to Fano, Urbino, Fossombrone, Sesi, and Ancona. A glance at the map will show that one half of the Papal territory was thus suddenly lost.

This spontaneous and rapid revolt of a large portion of the dominions of the self-styled Vicar of Christ has been represented as done "at the instigation and with the assistance of the foreigners;" but such a view is altogether opposed to facts. Before the commencement of the war, the military occupation of the States of the Church was divided between two great powers—France holding the capital, and Austria the Legations. When Austria, as we have seen, withdrew her forces, the people, hitherto kept down by

foreign bayonets, at once reverted to that natural state of rebellion and repudiation of Papal authority which had for a while been forcibly interrupted. The thing was done as a matter of course. It was perfectly notorious that it would be done, as soon as the opportunity offered — just as we know that a bow will straighten itself as soon as the string is cut, however much it may have been bent by external force.

It was not to be expected that the Court of Rome could look on with unconcern, whilst one half of its ancient dominions was thus passing from its sway, but the conduct of the Holy See at this juncture was such as to provoke just censure and rebuke. The Encyclical Letter of the Pope, dated June eighteenth, contains gross misrepresentations of the nature and causes of the revolution — and an Allocution delivered on June twentieth contains statements still more at variance with truth and justice. In this latter document, the Pope threatens excommunication against all who “by act or counsel, or in any other way, have dared to violate, disturb, and usurp our and this Holy See’s civil power and jurisdiction, and the patrimony of the blessed Peter.” He also calls upon the sovereigns of Europe to use their united zeal and counsel for the preservation of his temporalities intact.

The Papal government also took prompt measures in order to reduce to obedience the various revolted provinces. A body of troops was immediately dispatched for the purpose of crushing revolt, and before the end of June, the authority of the Holy See was restored in every part of the Papal dominions, with the exception of the four Legations of Bologna, Ferrara, Ravenna, and Forlì; not, however, without violence and bloodshed.

The massacre of Perugia by the Swiss troops in the pay of Rome, was a deed of which it is difficult to say whether its folly or its guilt was the greatest. It is, undoubtedly, the right of a ruler to suppress rebellion with the utmost promptitude, consistent with a due discrimination between the innocent and the guilty; but immediately that authority is restored, clemency becomes a duty. It is impossible to reconcile the barbarities enacted at Perugia — the slaughter of women and children — the shooting and bayoneting of men standing unarmed in their doorways — the outrages committed on the

American family — the rifling of shops and houses — and the shooting down of helpless fugitives attempting to escape out of the town. The object of these proved atrocities was, no doubt, to make an example of the insurgents, and to terrify the sister cities of the Papal territory; but the crafty authors of the plot were not wise in these excesses. At a time when the Papal Sovereignty was trembling in the balance, it was nothing short of infatuation to show the red hand to all Europe. The massacre of Perugia raised a cry of horror and indignation throughout the civilized world, and led even Catholics to demand that the Pontiff should at once be relieved of his secular crown; and that, assured of a secure and dignified residence in the Eternal City, he should be free to administer the affairs of his vast spiritual empire.

Shortly after the sack of this ill-fated town, the Papal government dispatched a body of troops, including the garrisons of Rome and other towns, to the Romagna, with the view of reducing to obedience the revolted provinces of Bologna, Ferrara, Ravenna, and Forlì. The expedition, however, proved altogether fruitless. The Pontifical troops were unequal to cope with the adverse forces. Massimo d’Azeglio, Commissary Extraordinary, with two Piedmontese regiments, and a large body of volunteers, had already arrived at Bologna. It was one thing to attack a mob, headed by a few revolted soldiers; it was a very different thing to fight with a body of regular troops. The soldiers of the Pope were considered too few for the attempt. At this crisis the Pope consulted the French Ambassador. His Eminence remarked on the obvious danger of attacking the Sardinian troops. He recommended a policy of delay, and even promised to demand of the Court of Turin the withdrawal of the Commissary and of the troops. Soon after occurred the armistice, and the peace of Villafranca. The Pope seized the opportunity of asking the French government to restore his authority in the Romagna. The request was refused, chiefly, it is said, on the ground of the *quasi-engagements* of France to Italy, and the whole question was postponed till the Conferences at Zurich should come to a conclusion.

A few weeks later, the Pope addressed a letter to the Emperor of France, which afterward appeared in the public jour-

nals. In this epistle, the Holy Father concedes that circumstances did not admit France to interfere directly, but he asks whether he might not indulge the hope of seeing French garrisons occupying the Marches of Ancona, and other points then occupied by the Papal troops, in case he were to order the latter to march against the Romagna. The reply sent by the French government to this request was in the negative.

Disconcerted by this repulse, the court of Rome by no means despaired. The Pope looked anxiously around, to see in what quarter he could obtain effectual help. An application was, in the first instance, forwarded to Spain for a sufficient number of troops to put down the insurrection. The Spanish government promptly responded to the appeal, and resolved to place twenty thousand men at the Pope's disposal. It was, of course, impossible to bring such a force as this into the Roman territory with giving notice to the French government. This was accordingly done; but, to the intense mortification of the Papacy, the answer returned was, that France would neither consent to nor permit the entrance of a Spanish army into the Papal States; that the intervention of Spain would only introduce fresh complications into the affairs of Italy; in short, that France would consider such a step as a direct challenge on the part of Spain. A similar application, made about the same time, to the King of Naples, was frustrated, it is said, in the same manner.

The Duke de Grammont, French ambassador to the court of Rome, had an audience of the Pope, August twenty-ninth, for the purpose of placing before the Holy Father the wishes of the Emperor. After stating the earnest desire of France that the reforms sketched in the pamphlet *Napoleon III. et l'Italie*, should be carried out, he entered on the subject of the Legations. The French government could not, he said, interfere to restore order in the revolted provinces. The Papal authority had been cast off by the people themselves; and the recent system of government was one which the French cabinet could not approve. He then formally stated the wishes of his imperial master. "Let the Pope consent to the separation of the Legations from his dominions—the new state to enjoy the privilege of self-administration—the Pope

to have, for the first time only, the right to nominate the Governor of the new republic."

The Pontiff expressed the greatest surprise at these proposals. He could not forget the assurances which he had received from the Emperor, that the integrity of his dominions should, in any case, be respected. He declared that he would never consent to abandon any of the rights of the Holy See. "In that case," said the Duke de Grammont, "France will withdraw her troops from Rome." The Pope is said to have replied: "Your government, therefore, wishes to dethrone me. It knows that, with the revolutionary spirit which is abroad in Italy, the withdrawal of its troops to-day will be the signal for the revolution breaking out to-morrow. It is scarcely generous in a power like France to use such moral violence, to force out of an old man concessions which he may not make. But this old man is the Pope, and, by the grace of God, he will remain firm. Tell your government that, after its unexpected demands, I can no longer occupy myself with the plans of reform which I had entertained. It may withdraw its troops, and so force me to retire from Rome, to which its troops restored me in 1849. If so, I will seek a refuge in some corner of Catholic Europe; and if Europe fails me, I am prepared to go forth to the ends of the earth, before I will break my oath, or consent to the usurpation of the smallest portion of the patrimony of St. Peter."

The immediate effect of the Emperor's refusal to restore the Legations was to consummate the revolution in those provinces. On the sixth of September, the National Assembly of Bologna voted unanimously the cessation of the Papal authority; and the following day the same body decreed annexation to the constitutional kingdom of Victor Emmanuel. A deputation was forthwith appointed to present the petition to the King. Many were the difficulties and delays experienced in executing this commission; but at length an audience of the King was obtained on September twenty-fourth, at Monza; but the answer returned, though favorable, was not decisive.

The next phase of the Roman question was the publication of the famous pamphlet *Le Pape et le Congrès*, which appeared just before the close of the year 1859. It will be remembered that, although the

preliminaries of peace were arranged at Villafranca July eleventh, and the treaty itself concluded at Zurich October eighteenth, still nothing was done for the pacification of Italy. This was left to be accomplished by a Congress of the Powers of Europe, to be summoned hereafter. The Roman government had given in their adhesion to this important measure, and every thing was in a fair way for the meeting to take place, when, on December nineteenth, the Paris and London journals announced that an official pamphlet was about to appear, explaining the views of the Emperor respecting the settlement of Italy.

This celebrated *brochure* accordingly appeared on December twenty-second, being published in the London *Times* and the Cologne *Gazette*, on the morning of the day on which it appeared in Paris. In an artful and indirect manner, the writer completely demolishes the temporal sovereignty, whilst affecting to maintain a certain amount of Papal authority. Rome, and a small extent of territory around the city, together with an income suited to his position, must be guaranteed to the Pope. But he will be a king only in name. The temporal power is incompatible with "a state of any extent. It is only possible if exempt from all the ordinary conditions of power. It must exist without an army, without a parliament; so to say, without a code of laws, or a court of justice." And, by way of reconciling the Pontiff to this humiliating conclusion, the author naïvely remarks: "The smaller the territory, the greater will be the sovereign!"

The appearance of this document—expressing, as it undoubtedly did, the views of the Emperor—was as though a bomb-shell had exploded in a magazine of combustibles. The Ultramontane party all over Europe were at once in arms. The press teemed with fierce invectives against the Emperor. The bishops, in many places, delivered violent philippics from the pulpit, or in the form of pastoral letters, and sent addresses of condolence and sympathy to the Holy Father. Meetings, too, were held in Great Britain and Ireland by the Pope's partisans, and prayers ordered to be put up for the safety and prosperity of the Holy See.

But the most important result of the publication of this document was, that it rendered impracticable the approaching

Congress. A dispatch of Lord Cowley's to the British government, dated January first, 1860, states the reasons thus:

"Your Lordship will have been informed by the Charge d'Affaires in London, that the projected meeting of the Congress on Italian affairs has been indefinitely postponed. A pamphlet, published in Paris, under the title of *Le Pape et le Congrès*, which has created too much stir in the political world not to have attracted your Lordship's attention, is the indirect cause of the postponement. The Austrian government, it appears, requires an engagement on the part of the French government, neither to bring before the Congress themselves the measures of which the pamphlet is the advocate, nor to support them if brought forward by others. The French government hesitate at entering into any such engagement; and Austria, in consequence, declines appearing at the Congress—that is, she declares that she will not assist at a Congress, in which the Pope is not represented; and it would seem, although nothing official has been received from Rome, the intention of the Pope is to require the engagement to which I have alluded, before he will send a plenipotentiary to Paris."

Thus was the long-talked-of Congress indefinitely postponed, and ultimately abandoned, as impracticable. It was, in fact, from the first, a most futile proposal. Between the doctrine that it would be the duty of a Congress to restore the Pope's authority in the revolted States, and the doctrine that no force ought to be used to impose a government or constitution on the people of Central Italy, there could be no agreement. Two or three months more were spent in fruitlessly attempting to solve the difficulties of the Roman question. Lord John Russell forwarded four propositions to the French cabinet on this subject; and the Emperor of France explained his views on the subject in a dispatch to his representative at Turin. But nothing came of these diplomatic proceedings, as the Sardinian government had resolved to convolve the people of the Legations and decide the matter by universal suffrage.

March eleventh was a joyful day for the people of the Duchies and of the Romagna, for it was the day fixed for the commencement of the voting. The ceremony was to occupy two days; but such was the enthusiasm of the people, that the matter was eventually decided at the close of the first. As early as seven A.M., the country people formed processions to march into the towns, carrying the tri-

colored flags, and placards in their hats. The chief roads were never empty the whole day. Smaller and larger detachments of people were continually passing along, singing and cheering as they went. In the States of the Church the country wore, more than in the Duchies, the appearance of a holiday. At Bologna not a house nor a shop could be seen which had not its handbill with "*Viva Vittorio Emanuele, nostro legittimo Rè!*" "*Viva l'Annessione!*" "*Fedeltà al nostro Rè!*"

Never did the cause of popular freedom achieve a more signal triumph than on the occasion just described. Both in the Duchies and in the four Papal provinces of the Romagna, the people decided by an almost unanimous vote for annexation to Sardinia. The appeal thus made to universal suffrage drew forth, in an unusual degree, the sympathies of England. It was felt that the act of the population was undoubtedly sincere. In the case of the Romagna especially, what people in Europe had endured such sufferings? The whole of their modern history had been one long record of cruelty and oppression. They had never known what it was to enjoy public liberty and national independence. Their private life was embittered and degraded by the tyranny of a foreign soldiery and an arbitrary police. And now they had come forward, as one man, to record their vote for a constitutional king.

There was no room here for charges of force or fraud, of frightened peasants and cheating ballot-boxes. The Pope, the Austrian press, the Ultramontane party generally exclaimed, of course, that the people of Central Italy were mad—seduced by the teachings of revolutionists and atheists. But they were obliged to confess, whether right or wrong, that the whole mass of the people had utterly rejected the government under which they had lived.

The successor of the Gregories and Innocents of former days felt himself bound by precedent to curse the enemies of the Holy See, and, accordingly, on the twenty-ninth of March he published an Apostolic Letter, or Papal Bull, pronouncing the Major Excommunication against all who had invaded, or assisted in the invasion, of the provinces of the Romagna belonging to the Church.

Time was when a proclamation of this kind would have kindled a flame through-

out all Italy, and perhaps Europe. In the "Ages of Faith," excommunication was one of the most terrible calamities which could befall a transgressor of the laws of the Church. In the case of an excommunicated sovereign, the Pope always pronounced him deposed, absolved his subjects from their allegiance, and transferred his dominions to others, who were excited to make war upon him, expel him, and seize the vacant throne. Gregory VII., after anathematizing the Emperor Henry of Germany, and all his adherents, declared all the princes of the empire freed from their oath to him, and urged them at once to choose another emperor, which they did; and Henry was driven from his throne, and ended his days in ignominy. When our own King John was excommunicated, the Pope gave away England to the king of France, and that monarch at once made preparations to take possession of it. It was only by a base and disgraceful submission to the Pope's legate that John preserved his crown.

Unfortunately for Pope Pius, the whole power of this once formidable weapon of the Church lies in people's belief of its efficacy. And thus it happens that now men have learnt to despise the threatenings of a priest, even though stationed at Rome; the thunders of the Vatican have become a *vox et preterea nihil*. It was, in fact, impossible to read the document which was flashed by telegraph all over the Continent on the fourth of April, 1860, without perceiving that the self-styled viceregent of heaven felt the impotence of the act. It was impossible to treat it seriously, as though there was the faintest breath of life in the words. And the suppressed laugh with which Europe treated the Bull will pass down with it on the page of history. The Pope confessed, with a sense of impotence quite piteous, that there was but little chance of the Bull going where it was most needed—to the kingdom of Sardinia—so he announced that he had taken care to have it posted up on his own church-doors, and begged all parties concerned to consider this as quite sufficient to render it valid.

The magniloquent production was characterized by cowardice as well as impotence. It said plainly throughout: "I would do more if I dared." The Pope felt he was bound to curse some of the

authors of his losses, and, being afraid to curse any one in particular, he contented himself with cursing every one in general connected therewith. The excommunication was fulminated against millions, and the millions regarded it with indifference. King Victor Emmanuel, the arch-enemy of the Holy See, was not once named in it, but merely hinted at in ambiguous phraseology. And the curse pronounced was so general that it could produce no effect on any one.

After the loss of the Romagna, M. de Lamoricière, a French general in high repute for valor and military skill, took the command of the Papal troops, much diminished as they were by desertion. Monsignor de Merode, who had served under Lamoricière in Africa, was Minister of War. The great visible defender of the temporal power of the Holy See could be relied on no longer. The dominion of the Austrians in Italy—on which the sovereignty of the last four Popes had rested—was broken, and four provinces were already lost to the successor of St. Peter. The question then arose, whether the voluntary efforts of the Catholics of Europe could not repair the losses, and preserve inviolate the dominions of St. Peter. A cry of enthusiasm rang through the Catholic world. The French did good service to the Pope by their writings; but Belgium, Austria, and Ireland displayed a more active sympathy for the troubles of the Holy Father. A general collection was made for the Papal cause. Thousands of volunteers, too, were persuaded to quit their homes, and rally round the standard of St. Peter; and before the end of May, General de Lamoricière found himself at the head of eighteen thousand men, and fully equal, as he considered, to defy any movement proceeding from the free corps of Italy alone.

The summer was occupied in marching and counter-marching the Papal troops, and training them for the conflict which was evidently not far distant. The most extravagant expectations of victory were entertained by the Papal party. A letter from the special correspondent in Rome, of the *Armonia*, published in the *Tablet*, a Roman Catholic journal, of September fifteenth, says:

"Do not believe that here the intrigues of the revolution to invade the Roman States are not known. We know them all, and are on

our guard on all sides. The military preparations are now arrived at a point which may be called final. The fortress of Ancona is in a condition to support a siege of six months, even from a large army. More than one hundred and fifty cannon are placed in the batteries, and it is provided with food and ammunition for a long period. The robbing the Pope of the Marches and Umbria will not be so easy as the affair of Sicily was for Garibaldi."

On the eighth of September, Garibaldi, after subduing Sicily, entered Naples, almost alone, and was received with extraordinary demonstrations. This was the signal for the invasion of the Papal States by the Sardinian troops. The first step was the dispatch of an ultimatum of Count Cavour to the Court of Rome, demanding the immediate disbanding of the army of Lamoricière. This document stated that—

"The collecting of bodies not composed, like the armies of all civilized governments, of the citizens of the country, but of men of different languages, nationalities, and religions, is a deep offense against the public conscience of Italy and Europe. Their necessary want of discipline, the inconsiderate conduct of their leaders, the provocations which they parade in their proclamations, produce a most dangerous fermentation. For these, and other reasons," it proceeds, "the royal troops have received orders to prevent these mercenaries from using violence to repress any expression of sentiment in the Marches and in Umbria."

Count Cavour then invites the Roman government immediately to disband and dissolve these bodies. Three days afterward Victor Emmanuel gave an audience to a deputation of the inhabitants of Umbria and the Marches. His Majesty granted the protection which the petitioners requested, and orders were at once issued to the Sardinian troops to enter those provinces by a royal proclamation. At the same time, a memorandum was drawn up by Count Cavour, and addressed to the various European courts, explaining, at considerable length, the reasons which influenced the Sardinian government in resorting to a measure so important.

Never was an invading army received with greater enthusiasm than the troops of Victor Emmanuel as they entered the States of the Church; and as one garrison after another surrendered to the royal forces, the inhabitants of those oppressed and misgoverned provinces began to breathe again.

It was on September eleventh, 1860, that the army of Sardinia crossed the Papal frontiers; one body, under the command of General Cialdini, entered from the Romagna, and another, under General Fanti, by way of Tuscany. The first place which occasioned Fanti's corps any delay was Perugia, the scene of the yet recent Papal massacre. This town, of about eighteen thousand inhabitants, was garrisoned by a force of eighteen hundred men, of whom one hundred and forty were Irish volunteers. Fanti's *corps d'armée* made the assault; and "after an earnest and brilliant fight from street to street, under an obstinate fire of the enemy," says General Fanti, the Papal soldiers were driven into the citadel. This place was at once invested, and, after a short cannonading, the whole garrison surrendered as prisoners of war. On the seventeenth instant, Spoleto was besieged. The citadel was garrisoned by six or seven hundred men, including Austrian and Swiss recruits, and two companies of the luckless Irish brigade. Major O'Reilly, the officer in command, could only offer a most inadequate resistance—partly owing to the want of ammunition, and partly from the cowardice and treachery of the Papal troops.

General Cialdini, who commanded the other body of troops, on entering the Roman States, marched on Pesaro, which, after a strong cannonading of a few hours' duration, surrendered at discretion. Advancing southward, along the coast, he took Fano the same day; and pushing on to Sinigaglia, pursued a column of the Pope's troops, flying to Ancona, and captured two hundred of them. Here he received information that General de Lamoricière was making for Ancona by forced marches. Cialdini, by a rapid march of thirty-eight leagues in twenty-four hours, succeeded in gaining the heights of Osimo and Castel Fidardo, and thus prevented the junction of Lamoricière with the other Papal troops.

Finding his plans foiled, Lamoricière was compelled to give battle to the foe. His forces comprised about ten thousand men. Cialdini's army did not amount to eight thousand men, but was more advantageously posted. The battle of Castel Fidardo was commenced by the Papal troops, and ended, after a sharp fight of some hours, in the total rout of Lamoricière's army. The General, perceiving

that all was lost, abandoned the field, and succeeded, by a rapid run along the coast, in reaching Ancona, accompanied by about thirty horsemen. The chief body of the Pope's soldiers at the close of the fight retired in disorder upon Loretto, leaving on the battle-field their artillery, their ammunition, carts, arms, and knapsacks, without end, as well as their dead and wounded; among the latter General de Pimodan, the second in command.

The Sardinian General, calculating on the weariness and demoralization of the Papal forces in Loretto, and taking advantage of the darkness of the night, pursued the fugitives, and cut off every chance of escape. The next morning the soldiers of the Pope laid down their arms, and delivered up to General Cialdini eleven pieces of artillery, ammunition, wagons, horses, and baggage—the closing trophy of the decisive victory of Castel Fidardo.

Ancona only now remained in the possession of the Pontifical troops. It is an ancient town, with an admirable port, capable of accommodating commerce to any extent. The magnificent mole erected by the Emperor Trajan still remains. The Austrians had constructed fortifications there for eleven thousand men; its garrison, under Lamoricière, amounted to about eight thousand. The town was invested by the united forces of Cialdini and Fanti, and also by the united Piedmontese and Neapolitan fleet—the latter having been given to Admiral Persano by Garibaldi on his arrival at Naples. Having reconnoitered Ancona on the twenty-third, General Fanti took the proper measures with Admiral Persano, and declared the blockade of the town by sea and land. On the twenty-fourth, the besieging army opened fire against the outworks of the place, all along the line—the squadron rendering effectual assistance. Day by day, one post after another fell into the hands of the assailants, and, at length, a daring maneuver of the steam-frigate, the *Vittorio Emmanuele*, decided the fate of the doomed city. Advancing with her steam up toward the entrance of the harbor, then veering suddenly round, and passing within fifty meters of the casemated battery, she fired a broadside into it. A few minutes after, a tremendous explosion announced that the powder-magazine had blown up. When the smoke cleared away, it appeared that the battery was a heap of ruins, in which one hundred and

twenty-five of the Papal artillerymen were buried.

All was now over ; a white flag of truce was seen waving on the fortress of the town, and, after some tedious negotiations, the Sardinian troops entered Ancona the next day, and occupied the fortress, the entrenched camp, etc. The next morning the garrison, comprising three generals, three hundred and forty-eight officers, and seven thousand men, left the place, gave up their arms, and became prisoners of war. An immense amount of ammunition, stores, money, etc., fell into the hands of the victors. General Fanti enumerates one hundred and fifty-four pieces of artillery, including two field-batteries, with all their equipments of chariots, etc. The money amounted to four million one hundred and twenty-five thousand francs.

Thus ended the brilliant campaign against Lamoricière and his heterogeneous troops. Thus melted away an army of eighteen thousand men, which had cost the Papal treasury and the Catholic Church a million and a half sterling ! Never was a war undertaken with more complete and utter defeat on the one hand, or more rapid and entire success on the other. In one week from the entry of the Sardinians into Umbria and the Marches, all the garrisons but one had surrendered, and the army of Lamoricière himself had been routed and dispersed. The rapidity and ease with which Cialdini and Fanti overran the States of the Church reflects great disgrace upon the Papacy. It is true that the Sardinian troops were more numerous than the Pontifical troops, but these latter, it should be remembered, were strongly entrenched in camps and fortresses, and might have defied the efforts of their assailants for some time, had there been any real desire to hold out.

The plain truth is, that disaffection and cowardice on the part of a considerable portion of the Pope's troops were the real causes of the rapid conquest of the States of the Church. General de Lamoricière, in his official report, plainly imputes blame to the garrison of Perugia, whilst at the battle of Castel Fidardo, many of the Papal soldiers were guilty of the most disgraceful acts of cowardice. At the very commencement of the fight, the commanding officer of the First Chasseurs showed such deplorable signs of weakness, that his command had to be

given to another. At a subsequent period, the first foreign regiment, alarmed by the noise of the shells and the wounds of two or three men, began to waver, and many of the officers, we are told, shared in the feeling even more than the soldiers. In vain did Lamoricière and Colonel Alet try to reassure them. In a few moments the two battalions, without firing a shot, faced round, took to flight, and disbanded. Two other battalions followed the same example, without having received a single wound amongst them. And even when flying from the field in company with Lamoricière, three hundred and fifty having been fired upon by some fifty riflemen, all but eighty fled, and threw away their arms. The two superior officers shared in their disgrace. We say nothing as to the cause, but of this fact there can be no doubt, that, with some honorable exceptions, the defenders of the Pope's temporalities in this campaign, were a disgrace even to the cause they had espoused.

The overthrow and dispersion of the army of General de Lamoricière was a heavy blow and serious discouragement to the Papacy. So much time and labor had been expended in organizing that army ; such energetic and general efforts made to obtain money for its equipment ; such earnest protestations and entreaties addressed to the Catholic Powers of Europe for help ; such immense expenditure and heavy responsibilities incurred in the undertaking ; and such confident anticipations expressed as to the issue of the war ; that the destruction of the Pope's army was a blow such as the court of Rome will probably never recover. In a pecuniary point of view, the loss was most serious ; but in a moral sense, it was irreparable. Castel Fidardo rang the knell of Papal hopes and aspirations.

Umbria, the Marches, and the province of Viterbo were thus lost to the Pope ; and shortly after recourse was had to the *plebiscite*, and these states were annexed to the kingdom of Victor Emmanuel. The population of Umbria amounted at this time to 472,639 ; of the Marches, to 924,055 ; and of Viterbo, to 129,372 ; a total of rather more than a million and a half. The provinces still under the Pope's sway are, Rome and Comarca, with 326,504 inhabitants ; Civita Vecchia, 20,701 ; Velletri, 62,013 ; and Frosinone, 153,569 ; a total of 562,787 inhabitants.

The policy of the Papacy, ever since the defeat of Lamoricière, has been highly reprehensible. The Allocutions and Pastorals that have issued from the self-styled Vicegerent of Heaven would have disgraced any mere temporal ruler of a civilized community. One would suppose that a prelate, at the head of a large body of ecclesiastics, would display in such a crisis some amount of dignified calmness, as well as of candor and truthfulness in his public addresses. Instead of this, the Pope has given vent in these publications to rage, envy, and malice. He has indulged himself in slander and falsehood, and outraged all decency by the imprecations which he has called down upon his enemies. To all but the most violent partisans of the Holy See, it must have been abundantly evident that the Allocutions and Pastorals which have lately emanated from the Pope have been framed with the deliberate intention of deluding, misleading, and exciting the passions of mankind.

It is in the encouragement given to Neapolitan brigandage that the policy of the Court of Rome has been most deserving of censure. A circular, addressed by Baron Ricasoli to the foreign agents of the Court of Turin, on August twenty-fourth, 1861, connects Pius IX. with the bandits of Naples, and reveals a state of things at Rome for which the adherents of the Papacy were hardly prepared:

"The dispossessed King of Naples resides at Rome, in the Quirinal, and there he coins the false money with which Neapolitan brigands are freely supplied. The offerings extorted from the Catholics through the different countries in Europe, in the name of Peter's Pence, are employed to enrol these brigands in every part of Europe. They go to Rome to inscribe their names publicly, to receive the word of order, and the blessing [of the Pope.] From Rome they obtain the immense quantities of arms and ammunition which they require. On the Roman and Neapolitan frontiers there are depots and places of rendezvous and refuge, . . . as is proved beyond all doubt by the late perquisitions of the French. The hostile attitude and language of part of the clergy, the arms and proclamations found in convents, the priests and monks taken in the ranks of the brigands, prove beyond all doubt whence and in whose name all these instigations proceed."

After much more to the same effect, the Baron concludes, that the temporal sovereignty of the Pope is condemned

not only by the irresistible logic of the national unity, but by its proved incompatibility with civilization and humanity.

On the very day of the appearance of this circular, a pamphlet was published in Paris called *L'Empereur, Rome, et le Roi d'Italie*, which, without a doubt, represented the views of the Emperor. It began by declaring that the policy of the reaction was to make the Neapolitan provinces another Vendée, and Rome another Coblentz, and that the movement was less a civil war than a brigandage on a large scale, excited and paid from Rome by the ex-King of Naples with the gold of Legitimists and priests. It then maintained that a united Italy, instead of being an object of fear, accords with French interests, and that the union is incomplete without Rome. It vehemently attacked Rome, and argued that civilization requires the separation of the temporal and spiritual power; that the temporal power has been lessened, therefore, it may be annihilated, and that it is of human origin, therefore not eternal. Lastly, that the Italian government has offered every guarantee, material and moral, to secure the independence of the Sovereign Pontiff, and recommends the Pope to submit.

Shortly afterward, a supplementary pamphlet appeared, with the title, *Guarantees given by the King of Italy for the Independence of the Holy See*. It was concluded to abolish the temporal power; to intrust the personal security of the Pope to the filial loyalty of the King of Italy, and to place the independence of the Holy See under the guarantee of the Powers. The person of the Pope to be inviolable, as also those of the Cardinals. The Papal States to be united to the kingdom of Italy; Rome to be the capital, and to remain, as heretofore, the seat of the Pontiff; his holiness to retain all the honors he has hitherto enjoyed; to have accredited ambassadors and ministers, enjoying the same immunities and privileges as the members of the diplomatic body; to retain his propaganda, his penitentiary, and his archives; his palaces and goods to be exempt from all taxes, jurisdictions, or domiciliary visits. Instead of tithes from the public revenues of his old states, the Pope would receive so much a year from the consolidated fund of the kingdom of Italy, while each Catholic power would be invited to guar-

antee him a proportional income, under the title of Peter's Pence. The King of Italy could engage to give the Church in Italy a greater liberty than it enjoys in any other country of the world; this liberty to include the direct nomination of bishops by the ecclesiastical authority, without the interference of the state; the right of assembling Synods and Councils; free correspondence with the Pope, and full permission for the publication of bulls and pastorals.

Accordingly, about the same time, Baron Ricasoli addressed an ultimatum to the Holy See, in which twelve articles were submitted as the basis of an amicable agreement between the Pope and the King of Italy. These articles were contained in a letter addressed to the Pope himself, and were substantially the same as those just enumerated. The propositions of Baron Ricasoli were, in the first instance, transmitted to the Emperor of France, with the request that he would be the medium through which they were to be presented to the Pope, and that he would support them by his representations. Both these requests the Emperor declined; but in doing so he did not reprobate them, he only expressed his opinion that they were inopportune. This final appeal to the Holy See has met with no response.

The last aspect of the interminable Roman question is exhibited in some important documents just laid before the *Corps Legislatif*, by the French Imperial government. In a dispatch of M. de Thouvenel to M. de Lavalette at Rome, dated January eleventh, 1862, the former minister gives the idea of the Emperor's government on the situation of the Holy See, and of Italy respectively. The Emperor says that:

"The natural course of human events conducts them, sooner or later, from the order of sentiments, into the order of reason; and politicians are at length forced to look at them under the latter aspect." "The question then is, Does the Pope mean always to introduce into his relations with the new *régime*, established in the Peninsula, the inflexibility which is his first duty in matters of dogma? or, whatever be his judgment respecting the transformation effected in Italy, has he decided on accepting the necessities which spring from this considerable fact?"

In recognizing the Kingdom of Italy, the Emperor's government—

"Acted under the conviction that the hypothesis of a restoration of the past was no longer realizable. No Cabinet dreams of reacting by force against the order of things inaugurated in the Peninsula. Must not the Pope resign himself to transactions of facts without renouncing his rights?" "Will not the Holy See apply itself to a combination which would assure to the Sovereign Pontiff that permanent condition of dignity, security, and independence which are necessary to the exercise of his power?" "The interests of France are too profoundly affected by the antagonism of two causes which its political and religious traditions recommend to its sympathies with equal claims, to be able to accept indefinitely the responsibility of a *statu quo* as injurious to the one as to the other, and to renounce the hope of opening the way to an arrangement."

These proposals have been met by the same obstinate refusal on the part of the Papacy as before. The only reply which the Pope will give is the eternal *non possumus*. Any transaction between the Holy See and those who have despoiled it is impossible. "The Sovereign Pontiff, as well as the Cardinals, before being nominated, bind themselves by oath never to cede any of the territory of the Church. The Holy Father will, therefore, make no cession of that nature."

Such is the present posture of the Roman question. The Papacy still exhibits the same haughty and pertinacious resistance which has been for ages its approved policy, as though inspired by a secret confidence that in the end all will be well. But on what does the Pope build his hopes? He must be aware that the cause of the temporal power is lost in Europe. Look where he will, he can discover nothing but indifference. Everywhere princes and people are busied with the usual concerns of life, without bestowing a thought upon Rome. If they had meant to interfere on behalf of the Holy See, they would have done so long before this. The French Church party, who, if they had been earnest, might probably have rendered effectual service to the Papacy, has done little beyond making a few decent demonstrations. But the influence of Rome has been excessive for some years in France; and if France will not come to the rescue, where else can the Pope look for help? It is true the Roman Catholic nations of Europe are still attached to their old faith and ritual; but there are other principles working among them altogether adverse to the continuance of the temporal pow-

er. They are for leaving the Italians to govern themselves, and can not be persuaded by their priests that it is right for the Pope to keep up a hateful authority over his unwilling subjects because the good of the Church requires it.

Amidst all this supineness and apathy of the nations of Europe, the Court of Rome still clings to the hope that the French Emperor will not abandon the bark of St. Peter. Pius, Antonelli, and Merode, all cherish the belief that Louis Napoleon dare not desert them. The ruler of France—a country containing millions of pious peasantry, and forty thousand priests—will never allow Rome to be overwhelmed with the revolutionary tide. The Empress, too, is with the Pope, and the *noblesse* are on his side, and so is society in Paris. “The Emperor dare not desert us,” is the cry of the

Papal conclave. “Let us remain firm, and await events.”

We believe that the Papal conclave will, when too late, discover their error. Louis Napoleon has evoked a power which ere long will prove too much for him to master. The Italian nation has shown a marvelous amount of patience hitherto, but the late popular demonstrations against the Pope-king show that there is a limit which must not be overstepped; and if the solution of the Roman question be long deferred, the people of Italy will take it in hand themselves, and compel the Emperor to withdraw his troops from Rome. When once this happens, the government of Victor Emmanuel will not only succeed to that of the French general, but the temporal authority of the Pope will have passed away, never, we believe, to return.

From Bentley's Miscellany.

CANTERBURY AND ITS ARCHBISHOPS.*

THE first volume of Dr. Hook's *Lives of the Archbishops of Canterbury*, having brought down their history from the mission of Augustine to the close of the Anglo-Saxon dynasty—a period of about four hundred and seventy years—the Archbishops during the Anglo-Norman reigns form the subject of the second volume of this important biographical work,* and it brings before the reader a totally new set of ideas as well as a different race of men, and a greatly altered state of things in Europe. It comprises historical characters and times of undying interest in the annals of this realm; for here we have the lives of Lanfranc, Anselm, Becket, Hubert Walter, and Langton, not to mention six archbishops of inferior distinction. The book occupies a period of little more than a century and a half; but the years that

elapsed between the Conquest and the Great Charter, between Lanfranc and Langton, between Hildebrand and Innocent, are among the most eventful years in medieval history. They saw the rise of feudal institutions and of the age of chivalry; they saw the rise of the universities and of our courts of law; they saw the beginning of the great struggle between the ecclesiastical and the civil power, in which the Church fought the battle of the people against kings and barons; and they saw the sanguinary yet romantic warfare of the Crusades, which brought the arts and learning of the East to Europe, and aided the progress of civilization.

In those contentious ages, when even ecclesiastics were more commonly combative than literate, the primates of England maintained the foremost place, and archbishops were ministers of state and viceroys, warriors and judges, and a bishop was seen at one time emulating the lives of saints, and at another besieging a cas-

* *Lives of the Archbishops of Canterbury*. By WALTER FARQUHAR HOOK, Dean of Chichester. Vol. II.: Anglo-Norman Period. Bentley. 1862.

tle, then acting as commander-in-chief, or seated among mail-clad barons in the royal councils. It helps one to realize the character of the stormy Anglo-Norman reigns, if we remember these features of the age, and think that the cathedrals and the castles of England were then rising; that the speech of the people was still Anglo-Saxon, and the language of the court and the aristocracy Norman-French; that the only written language was Latin, and the only scholars were the clergy; that the feudal lords were generally turbulent and warlike, and wicked as well as unlettered, and knew not the refinements or the means of enlightenment that are now accessible to the peasant; that the Saxon trials by ordeal were still in use, that our judicial system was only in its dawn, and England had not yet seen the beginning of her parliament; that the lower classes of the people were for a large part in feudal slavery, and the freedom and independence of municipalities was hardly begun. No towns of portentous magnitude then spread labyrinths of streets over the fields, or darkened the landscapes of England; most of the highways were those the Romans had left; a great part of the country was still forest, the abode of the bandit, the wild boar, and the wolf; and the abbeys, which received the traveler on his route, afforded almost the only humanizing influences of the time.

The Dean of Chichester prefixes to the series of biographies contained in the present volume, an elaborate introductory sketch of the spirit of the age, the state of the people after the establishment of the Norman rule, and the influence of the Crusades on the progress of civilization. He also shows the importance in those days of the monastic institutions—then the nurseries of statesmen and the homes of learning—and glances at the rise of the university system; and for the better understanding the conduct of the archbishops, he sketches the policy of the popes and the lawlessness of the kings.

The Crusades can not be adequately discussed in an incidental notice, but the advantages and the calamities that resulted from them (amongst the former, the abolition of slavery in England,) seem to us to be very fairly stated by Dr. Hook: we must not judge them by modern standards, or measure Christian enthusiasm by maxims of political economy. It was an

age when (as some one has truly said) life was earnest in its beliefs as well as stormy in its ambitions; when abbeys were reared in many a quiet vale, as well as feudal castles on many an English hill; and when the feudal chivalry, though unskilled in any art but that of war, and too often the representatives of lawless power, could glow with enthusiasm for the Holy Land, and endow churches, in which, if they lived to return from Palestine, they were laid for their final rest. But, whatever the rank of the Crusader, no considerations of worldly honor, interest, or pleasure, restrained him from the heroic enterprise, for religious zeal combined with military ardor. However depraved the state of society may have been, the Crusade appealed to the nobler instincts of human nature; from those instincts chivalry sprang; and chivalry represented all that was humanizing, and softening, and self-denying and courageous in mankind. People can now talk wisely about the insanity of the Crusades, and the superstitions of what they call "the dark ages," but a lust for gold is the superstition of the present age; and we believe with Mr. Ruskin that "those who have worshiped the thorns of Christ's crown will be found at least to have been holier and wiser than those who are devoted to the service of the world." Ages may have been warlike and stormy without being dark, and men may have been rude and unlettered without being barbarous; and it certainly does not become an age that believes in spirit-rapping, to condemn the superstitions of the middle ages or the fanaticism of the Crusades.

Dr. Hook regards the first Crusade as the termination of the "dark ages," and the commencement of a new era. Medieval history, he remarks, extends from the commencement of the fourth century to the close of the fifteenth—a period of twelve centuries, of which, he says, "seven may be regarded as dark." But the learned author surely can not mean to call the first seven centuries of this period "dark"? That reproach can not be applied to the age of Cyril and St. Augustine of Hippo; of Theodosius and Justinian; of St. Benedict, and Boethius, and Gregory of Tours; of Pope Gregory the Great and Augustine of Canterbury; of Aidan, and Bede, and Aldhelm; of Alcuin and Charlemagne; of Archbishop Egbert and Erigena; of Theodorus of Canterbu-

ry, Alfred the Great, Elfric, and Dunstan. Neither can the age be called "dark" in which schools of learning were incorporated into universities, and in which the monasteries began to shelter religion, literature, and art. The term is relative; and, after all, the question arises, what is meant by "a dark age"? If the want of letters, of civilizing influences, and of great men makes an age dark, no doubt England passed through dark ages in the time of the first Saxon invasions, in the contests between the petty kingdoms of the Heptarchy, in the long years which preceded the missions of the Celtic Church and the Roman Church, and (in later periods of our history) after the Danish and the Norman ravages laid waste the north of England.

But the character of the age in which the archbishops lived is material to their biographies only in as much as their actions must be regarded by the light of contemporary history, and with reference to the state of society in their time. The Dean disclaims any attempt to depict the character of any one of the personages whose lives he has written, and professes to record actions and opinions only.

The noble and commanding figure of Lanfranc heads the procession of the Anglo-Norman primates. He was a native of Pavia, in Lombardy, and having acquired proficiency in the civil and canon law, he practiced as an advocate, until political troubles led him to make choice of Normandy as the place of his future labors; and founding a school at Avranches, he attracted crowds of scholars, for he is said to have been as skilful in imparting as he was laborious in acquiring knowledge. A newly-acquired enthusiasm led him to the monastery of Bec, in which he spent some time, and which he quitted reluctantly for the court of the Duke of Normandy. Although long unwilling to exchange the studious life of the cloister for the thorny distinction of the primacy, he suffered himself to be promoted in 1070 to the archiepiscopal dignity of Canterbury. Three years before that time the Saxon cathedral had been destroyed by fire; and it is remarkable that we should owe to Italians not only the planting of the Church of Christ at the end of the sixth century, but the building of the Norman cathedral of Canterbury in the eleventh. Lanfranc's edifice was destined to be, like its predecessor, not of long du-

ration. He rebuilt also the episcopal palace, and over it placed Gundulf, a monk of Bec, afterward Bishop of Rochester, the builder of the massive and more enduring castle upon the Medway, and the architect of the Tower of London. Lanfranc served the Conqueror in high civil office; and the ecclesiastical polity of William's reign is, no doubt, to a considerable extent, attributable to Lanfranc's counsel. He it was who separated the ecclesiastical from the civil tribunal, and in the administration of the Church he acted with prudence and justice. It was in his time that Osmund "the good," Bishop of Salisbury, drew up the service book which afterward, throughout the province, formed what was known as "the Salisbury use," and regulating liturgical usage, became the model ritual of the Church of England, and the basis of our Book of Common Prayer. We are glad to see that Lanfranc's literary works, and services to literature, are mentioned with due honor by his present biographer. If the age in which he lived was dark, Lanfranc, at all events, nobly contributed to its enlightenment.

He died May, 1089, in the second year of the reign of William Rufus, and was succeeded by the famous Anselm, who was also one of the most remarkable men of his time. He was a native of Piedmont, for he was born at Aosta, beneath

"The throned emblems of eternity, that rear
Above the earth-born clouds their mitred
snows."

He became a pupil of Lanfranc in the monastery of Bec, and ere long a teacher of others, and his fame attracted to that place a multitude of students, and scholars, and penitents. In 1070, when forty-six years of age, he accepted the abbot's staff from the hands of William the Conqueror, and his literary genius raised the community so high, that it came to be regarded as an assembly of philosophers. Here he passed thirty-three happy years, the object of adulation, the oracle and lawgiver to all around him, though sadly indifferent to providing food for his monks, for he had a bad habit of preferring his books to his meals, and disregarded creature-comforts himself. At Lanfranc's death, the Red King had seized the temporalities of Canterbury, and filled the royal coffers by delaying the nomination of a successor. At length,

however, when the profligate and avaricious oppressor believed himself to be dying, he nominated the Abbot of Bec for the vacant see, and amid great rejoicings Anselm was enthroned in 1093. We shall not follow Dr. Hook through his statement of the violent disputes which arose between the King and the Archbishop, who, inflexible in his notions of duty to the Church, seems to have disregarded tact and conciliation, and he resolutely refused to yield a supremacy to the King that was incompatible with obedience to the Pope. In 1097 he took refuge in Rome, and remained in exile during the rest of William's reign. At length, on the death of the fierce and godless monarch, Anselm was summoned to England by Henry I. But his refusal to receive investiture from the King involved fresh disputes. He nevertheless assisted at the marriage of Henry with Matilda, daughter of Malcolm, King of Scotland, and of Margaret, the sister of Edgar the Atheling, by which restoration of the Anglo-Saxon line, and as a descendant of Matilda, Queen Victoria is connected with Saxon royalty. Henry, with his accustomed policy, made the talents and influence of Anselm conducive to the consolidation of his own power, and the good Queen made him her spiritual adviser. In 1093, Anselm went to Rome, and a long and vexatious controversy arose between him and Henry, who at length conceded terms which the Archbishop, by advice of the Pope, accepted, and which formed the precedent for the conciliatory adjustment, some years afterward, of the ominous controversy as to investitures. Returning to England in the autumn of 1106, Anselm was joyfully welcomed on his landing at Dover, and Matilda in person made the provisions for his comfort which his illness and age (he was now seventy-three) required. He found Prior Conrad engaged on the magnificent architectural works which superseded Lanfranc's choir, and he aided their execution nobly, but he was not destined to witness the completion of the Norman cathedral, for on the eleventh April, 1109, amidst his attached friends and the monks of Canterbury, the good Archbishop passed to his rest. He was acknowledged to be "mighty in Scripture," and the many literary works he produced attest his intellectual power and depth of thought.

The saintly Anselm was succeeded by Ralph de Escures, a Frenchman, who, as Archbishop, was perhaps chiefly remarkable for being the patron of good and learned men. He was himself of a happy temperament, kind, affable, and joyous in spirit, and he seems to have borne with great equanimity the disputes and divisions which agitated the Church of England in his day. The last public act in which he was engaged was the marriage of Henry I. to Adela of Louvain, and the coronation of the fair young bride. His successor, William of Corbeuil, was, like him, a Frenchman, and he was elected to the Archbishopric at a time when the desire of the bishops was to see in the office of primate a politician who could defend the Church from the King on the one hand, and from the encroachments of the Pope on the other. The character given of him by a cotemporary might really be drawn from the life at the present day: "He was a man of smooth face and strictly religious manners, but much more ready to amass money than to spend it." The works commenced by Lanfranc and carried on by Anselm were completed during his primacy, and he consecrated the cathedral on the fourth May, 1130, in the presence of such a royal and noble assemblage as had never before been seen even in Canterbury, for it included Henry I. and David of Scotland, (himself the founder of many abbeys and churches in his own realm,) and nobles and bishops almost without number. Four years afterward, Archbishop William crowned Stephen, and in 1136 he died, "leaving immense sums secretly hoarded in his coffers." In Theobald, his successor, Canterbury now received a third Archbishop from the monastery of Bec. England was in a miserable condition of civil anarchy when this noble Norman became Archbishop, and Christianity would have been extinguished if it had not been for the monasteries. But rude and boisterous as was the time, his court soon became the center of resort for all the learning and ability of the kingdom. John of Salisbury, one of the most classical writers of the age, was his secretary, and "in close conversation with him might be seen sitting a young man, whom no one could look upon without asking who he was. In stature tall, of strength equal to any undertaking, with a keen eye, a quick ear, fluent in speech, cheer-

ful in discourse, ready in debate, with the manners of a noble and a knight, Thomas of London, the son of Gilbert Becket, the portreeve of the city, at once commanded respect, secured attention, and won friends."

The study of the civil law had shortly before been revived in Italian universities, particularly at Bologna; and Archbishop Theobald, who was more of the lawyer than the theologian, introduced the study of the science, and attracted its professors to his court, and about the year 1144 placed a professor of the Roman law at Oxford, whose lectures were afterward attended by persons of every rank, especially by aspirants to high office in Church or state. He discovered, encouraged, and employed the talents of the young Londoner, and enabled him to complete his legal studies by a year's residence at Bologna, and is said to have afterward employed Becket in a negotiation with the court of Rome, in which he rendered good offices to the house of Anjou, and paved the way to the favor in which he was held by Henry II. A very remarkable concurrence of circumstances fitted Becket for the position he was destined to occupy; and his patron, the Archbishop, soon after officiating at the coronation of Henry, (on the nineteenth of December, 1154,) commended to him the youthful scholar — then known as Thomas, the archdeacon — as the fittest person to be his chancellor, and he was the first Englishman ever appointed to that office. In 1161, the enlightened, charitable, and munificent Archbishop died, and was succeeded (in May, 1162) by the brilliant and courtly favorite, his former pupil and archdeacon.

To the life of Becket the Dean of Chester has evidently devoted especial care. St. Thomas of Canterbury is an ecclesiastical hero who has found so many biographers, and whose life affords such abundant materials for controversy, that the outlines of his career are tolerably familiar to most readers. His character has been viewed from different stand-points, according to the prejudices of the writer, but Dr. Hook's narrative is distinguished by its fairness and justice no less than by honest and painstaking research. The history of Becket is very conveniently arranged under the distinct periods of — first, his chancellorship; second, his primacy; third, his exile; and fourth, his

return to England, so speedily followed by the martyrdom (twenty-ninth December, 1170,) which has never had a more graphic delineator than Professor Stanley. We must own a wish that Dr. Hook had himself summed up the evidence and given his own view of the character of this extraordinary man, and that he had made more apparent to the general reader the motives of conduct which often seems inexplicable. The archiepiscopal mitre seems to have transformed his whole character; and Dr. Hook's portrait of him from the time when his acceptance of the primacy placed him in a situation of antagonism to the king his former friend, as often repels our sympathy as it raises our admiration. In one scene, Becket, as the champion of ecclesiastical independence, popular, yet never basely courting popularity, loving splendor, yet indifferent to the pleasures of the world, nobly contending for his right, single-handed against the heathen rage and might of power, engages our sympathies and homage, while in the next, his conduct is that of an aggressor toward the king, and seems marked by the most perverse and wrong-headed obstinacy and passion. But no one, impartially reviewing the circumstances of his position, can deny that his aims were most unselfish, and his actions guided by high views of duty; that he was as noble, high-minded, and consistent as he was independent and uncompromising, and that he was a hero worthy of his crown in the noble army of martyrs.

Without placing ourselves amidst the controversies of his time, and realizing the aims which claimed the loyalty of churchmen in the days of Hildebrand, and remembering also that to concede supremacy to the secular power in things ecclesiastical appeared to them to be to fear man rather than God, and to be a rendering to Cæsar of things that are God's, we can not adequately appreciate the cause for which Becket fought and died. However he may have been regarded since the Reformation, we must remember that, in his day, the people, and what may be called the religious sentiment of the nation, was with him; and this was the case, not on the Continent, where during his exile he was regarded as a Confessor for the Christian faith, but also in England, where, in the memorable conflict with the King and his council at Northampton — portrayed in the present volume with

much dramatic force—and again on his return from exile, he was borne, as it were, in triumph on a wave of popular enthusiasm. In this day, a champion of ecclesiastical independence contending against the temporal power would find arrayed against him what is called the Religious World, and encounter the roar of Exeter Hall and the motley and heterogeneous Protestants who, we presume, are adverted to by the apt description of “those noisy, intolerant, ignorant, yet sincere and zealous religionists, who, by their vehemence and violence, overawe, if they do not overpower, wiser and better men.”

It is to the honor of Richard, a Norman monk, the successor of St. Thomas in the see of Canterbury, that he too was the *protégé* of Archbishop Theobald, and, to the last, the friend of Becket. He seems to have thought more of peace, of making parks, and preserving game, than of following the ecclesiastical policy of his celebrated predecessor, and perhaps a more amiable man, and one whose rule was more equitable, never sat in the chair of Augustine. The penance to which Henry II., submitted in Canterbury Cathedral on the twelfth of July, 1174, for the atrocious murder of Becket, was the first of the two memorable events of his primacy; the other was the destruction by fire, in the following September, of Conrad's choir, the glory of the cathedral. Its reconstruction was intrusted to the famous William of Sens—who was in church architecture the Scott of his day—and was completed in 1184; but shortly before the work was finished Archbishop Richard died. He was succeeded by Baldwin of Exeter, a monk of the Cistercian monastery of Ford, who seems to have been of a fervid and inconstant disposition, and who finally forsook his see and province to join the third Crusade, in company with the illustrious Ranulph de Glanville, the Justiciar, but not before he had crowned Richard King of England. The enthusiastic old primate, after distinguishing himself before Acre, died of grief and disappointment in Palestine, and Hubert Walter, Bishop of Salisbury, followed his friend and patron to his grave in a strange land, and, on the thirtieth of May, 1193, to the archiepiscopal throne of Canterbury.

Hubert Walter was of noble family. He was the nephew of Ranulph de Glan-

ville, and, like Becket, was educated as a lawyer. He must have been a perfect incarnation of British energy. After his consecration as Bishop of Salisbury, he fought valiantly as a Crusader, and exhibited the military skill of a general officer, while he found in the camp a new field for his pastoral offices. When, on the advance to Jerusalem, the illness of King Richard spread a panic through the Christian host, the army owed its safety to Hubert Walter's courage and presence of mind; and Saladin himself is said to have respected in him the wisdom and prudence in which Richard was deficient—duly as he inspired respect for the “muscular Christianity” of the age. At a later period the King owed his ransom and delivery to his zealous and judicious friend, who, on his return to England, assumed the functions of the King's justiciar and vicegerent, and was elected Archbishop of Canterbury. When it became necessary to reduce the fortresses that were held by John, the King's brother, Hubert, the Archbishop, took the command of the forces in person, and at length welcomed back to England the royal hero of the Crusades, who, however, again committed to Hubert the care of the kingdom.

We have not room to follow Dr. Hook into his interesting digression on the state of London at this time, and on the domestic affairs in which the Archbishop exhibited his administrative abilities. He had no sooner suppressed the formidable insurrection of the Londoners, which was raised by that strange demagogue, Fitz-Osbert, known as “William with the Long Beard,” than he put himself at the head of the army to check an incursion of the Welsh. Hubert, accustomed to fight by the side of prelates on the plains of Palestine, saw nothing incongruous in commanding as viceroy an army assembled for the defense of his country, but the Pope thought him too much absorbed in secular affairs, and he gladly resigned the office of justiciar to Geoffrey Fitz-Peter, but, on the coronation of John, accepted the office of lord chancellor. At his hands all people, of whatever rank, were sure of justice and protection; he was a lover of peace and of truth, and a reformer of abuses; and the magnificence of his spirit was shown in the architectural works in which he was engaged, in his gifts for the church of Canterbury, and in

every thing in which he was concerned. Exercising at once regal and apostolical power, this great primate held an accumulation of offices which never centered in any other individual, and he is altogether one of the most remarkable characters in the history of his time.

Archbishop Hubert died on the thirteenth of July, 1205, and was succeeded by Stephen Langton, one of the most distinguished statesmen this country has produced. By his varied talents and knowledge of human nature he was qualified to shine equally in the court and in the cloister. Pope Innocent had called him to Rome, that he might have at hand, as his counselor, a man of piety and wisdom, skilled in law and at the same time in divinity. He reluctantly parted with him, in order that the most important see in Western Europe might be filled by the fittest man. His appointment by the Pope without the previous consent of the king, roused the monarch's indignation, as well as the resistance of the Chapter. The latter, placed in a dilemma, obeyed the Pope and incurred the fierce resentment of the king,

and soon England was plunged in all the troubles of the interdict and the negotiations, which ended in John's vassalage to Rome. These exciting chapters of national history are well and concisely written by Dr. Hook, who, by placing before us the active life of Langton as a politician and statesman, portrays his wisdom, his influence, and his superiority to his contemporaries, and we are to remember that it was as the adviser of Eustace de Vesci and Robert Fitz-Walter, the future general of the baronial army assembled against King John, leaders of the barons of England, that Stephen Langton became the author of Magna Charta. The splendor of his political life seems to outshine that of his primacy, but in his case the bishop was not wholly absorbed by the statesman; and the retrospect of his life might justly have been cheered by the reflection that he had ever lived for God, for liberty, and his country.

In conclusion, we congratulate Dr. Hook on these contributions to historical literature, and on the increasing interest of his work.

W. S. G.

From the Popular Science Review.

THE PHOSPHORESCENCE OF THE SEA.

BY A. DE QUATREFAGES, MEMBER OF THE INSTITUTE OF FRANCE, PROFESSOR AT THE MUSEUM AT PARIS.

TRANSLATED (WITH EXPLANATORY NOTES) BY THE EDITOR.

OF all the interesting, marvelous, or fantastic spectacles presented by the sea, one of the most remarkable is, undoubtedly, that phosphorescence in which the opposing elements *par excellence*, fire and water, appear to be blended in intimate association.

From time immemorial, too, it has arrested the attention and vividly excited the imagination of those who were enabled to observe it on a sufficiently exten-

sive scale. There never was a sailor who, in transcribing the narrative of his wanderings, has failed to comment upon those intertropical seas in which phosphorescence is revealed in all its splendor, and where the vessel seems to plow its way through one vast sheet of flames, leaving behind it a fiery track; whilst the great zoöphytes and mollusca, united in colonies and rolling beneath the waves, suggest to the observer the idea of glowing

cannon-balls or masses of incandescent metal.

But is it not possible that some little exaggeration may have crept into the descriptions of these brilliant tableaux?

One would fain be tempted to believe so; and yet the reality, as it may be observed even in our temperate seas, induces me to give credence to the testimony of these eye-witnesses. But not having had the opportunity of looking upon the phenomenon developed to perfection, and only desiring to speak of what I myself witnessed, it is my intention, in the present paper, to restrict myself to an account of some of my own observations, and of some experiments that I have undertaken in order to become satisfied concerning the cause of marine phosphorescence, as exhibited in our great European harbors.

1. DESCRIPTION OF THE PHENOMENON.

Most of the authors who have applied themselves to the study of marine phosphorescence, have treated only of what may be termed *diffused* or *general* phosphorescence. In this case the light appears to suffuse the whole surface of the water; but it is necessary to distinguish between this and another phase, in which the light is visible only in isolated patches, having no connection with one another, and where the liquid itself presents no appearance of luminosity: the latter we shall denominate *partial phosphorescence*.

The first mode of phosphorescence is visible in almost every part of the Mediterranean Sea. On the shores of the ocean it has been observed at Havre, Dieppe, Ostend, and doubtless in all sea-ports and tranquil basins. I have myself noticed it at La Rochelle, Boulogne, etc.; but it was at the place last-named that I studied it with the closest attention. Here the phosphorescence, which is very conspicuous in the "port," properly so-called, in the dry-dock, and especially at the oyster-beds,* becomes less perceptible between the two jetties, and entirely disappears where the fresh waters of the Liane intermingle with those of the sea.

The following are some of the observations made by me in the locality just

named, and which being, so to speak, the highway between France and England, will doubtless be well known to many of the readers of this Journal.

However favorable the circumstances may otherwise have been for the production of the phenomenon, perfectly tranquil water was *always* completely dark. A concussion, no matter how feeble, was requisite for the manifestation of light. A grain of sand thrown upon the dark surface gave rise to a luminous blot, and the undulations proceeding from this center were perceptible as luminous circles, becoming larger and larger, but at the same time more and more faint in proportion to their distance; just as the concentric undulations themselves became more feeble as they receded from the center. A stone as large as one's fist produced similar effects, but in a more marked degree; and then, moreover, the drops resulting from the splash resembled the sparks flying from an anvil on which the blacksmith is welding a bar of iron raised to a white heat. Tranquillity being again restored to the surface, all returns to obscurity, and the keenest observer could detect nothing that would lead him to suppose that this water, dark even to blackness, was ready at any moment to burst into coruscations, and recognize by its phosphorescent play, the descent upon its surface even of the minutest fragment of straw. The oyster-bed was always encircled by a phosphorescent belt, arising from the constant undulations of the sea, which broke upon the beach in gentle ripples. Seen from a distance, these little waves, barely four inches in height, presented a dead white tint, which might have been mistaken for foam illuminated by moonlight; but on a nearer approach their appearance changed, and they seemed to be crowned with a faint bluish flame, comparable to that preceding from a lighted bowl of punch. When they burst, the illumination, even as it appeared to a person standing at the water's edge, became whiter and more vivid, and the undulations often resembled waves of molten lead or iron, bespangled all over with innumerable sparks of a brilliant white, or whitish green hue. A similar appearance was presented on the sand after the wavelets had burst; for they imparted to it a uniformly white and luminous tint, from which there appeared to spring myriads of scintillations

* According to the project, recently adopted for the excavation of a wet dock, the oyster-beds will disappear; perhaps they are no longer in existence.

more vivid and intense than the luminous ground. As the water became absorbed by the sand, its limits were clearly defined by a bright luminous cordon or band, which indicated the extent to which it had spread upon the shore.

When the hand was plunged into these fiery waves, and then withdrawn, it was at first completely luminous; but after a few seconds there only remained a number of glistening specks, which were, however, tolerably persistent. Water drawn from the beach, and poured from a certain height, exactly resembled molten lead, and the splashing drops presented precisely the same appearance. This luminous display was of considerable duration, and it was sufficiently brilliant to deceive the instinct of animals. During one of these nocturnal rambles, in which I was accompanied by a friend * who was aiding me in my experiments, the watch-dog belonging to the oyster-bed came bounding toward us, and barked loudly, thinking, no doubt, that he had to deal with robbers. We repulsed him with the contents of our brine-can, and in order to escape from this water, which he mistook for fire, he at once fled, and contented himself with threatening us at a respectful distance.

Another circumstance whereby we may recognize that *movement* is necessary for the manifestation of these luminous phenomena, is the following: That portion of the beach from which the tide has just receded appears, as one approaches it, to be quite free from phosphorescence; but when trodden upon, this is found not to be the case, for the concussion caused by the foot in walking, produces exactly the same effect as the stone which is flung into the tranquil water. The very ground appears to kindle under the steps of the pedestrian, and the fine gravel presents the aspect of red-hot cinders; this appearance, under the most favorable circumstances, extending at times to a distance of some inches from the impression left by the foot.

Such are the chief phenomena that accompany general or diffused phosphores-

* M. Bouchard-Chantreaux, one of those rare examples of the class of men who, in the isolation of the provinces, are still capable of fostering an ardent love for science, and to whom justice is seldom rendered by the learned community; for, satisfied with the acquisition of knowledge, they publish but few, if any, of the results of their arduous labors and investigations.

cence; of a totally distinct character, however, are those which I ascribe to partial phosphorescence. In this there is nothing to remind one of the uniform tint that conveys an idea of the transmutation of the very liquid itself into the fiery element. The light is emitted only in isolated points, absolute scintillations, which usually appear and disappear with great rapidity. However numerous these sparks may be, they never by any chance coalesce; they stand out clearly from the dark background formed by the surface of the water, and their brilliancy is considerably heightened by the striking contrast. The spectacle which they produce is often a grand one. In the little channel known as the "Sund de Chausez," I have seen, on a dark night, each stroke of the oar kindle, as it were, myriads of stars, and the wake of the craft appeared in a manner besprinkled with diamonds.

At Bréhat, St. Malo, St. Vaust, and at Biarritz, I have collected similar data, and believe that I may unhesitatingly say that in those unsheltered roadsteads on the coast, which are entirely exposed to the free action of the waves, this, if not the only one, is at least the most frequent mode of phosphorescence.

It is with this kind of phosphorescence that I associate that of marine plants, so far as it has presented itself to my observation under certain circumstances; more especially as I witnessed it in the narrow channels which separate the rocks and granite islets of our small archipelagos in Brittany.

There I have seen entire masses of fucus kindle, as it were, when roughly shaken; but even then the luminosity presented itself in isolated points, which the eye could easily distinguish. Under no circumstances did either stems or leaves exhibit the uniform glow of a metal raised to a white heat, and the water which drained from the plants was perfectly dark.

2. CAUSES OF THE PHOSPHORESCENCE.

It may readily be conceived that a phenomenon so remarkable as that which is occupying our attention should early have attracted the notice both of the savant as well as of the superficial observer, and owing to that tendency of the human mind which prompts it to search after causes, before even it is conversant with

the nature of effects, explanations could not fail to abound. This is precisely what has happened. It is almost needless to say that many of these solutions, hazarded at the first blush, and based upon appearances only, would necessarily be, as they have indeed turned out, completely inaccurate.

Upon these, therefore, we shall not dwell, for it would be foreign to our object; but shall confine ourselves to the account of some of the more lucid explanations that have been attempted by various authors.

Ancient navigators appear to have attributed the light which is developed on the surface of the water to what may be termed "ordinary causes," and they believed it to be due to various atmospheric phenomena. To them, phosphorescence was the *meteor of the sea*. The foundation of this idea may be traced in the writings of some savans who have endeavored to account for phosphorescence by purely physical action. Abbé Nollet, for example, sees in it nothing more than a modification of electrical phenomena; Bajon refers it to a disengagement of electricity, occasioned by the friction of the vessel against the waves; Tingry compares it to the *fluorescence of the diamond*, and thinks that the sea absorbs solar light during the day, which is again liberated at night.

Side by side with these physical theories may be placed some chemical hypotheses, equally void of foundation; amongst which may be reckoned those which attribute phosphorescence to "phosphoric fires," to the ignition of bubbles of hydrogen bursting at the surface of the water, etc., etc.

Another explanation of a more rational character, and probably in many cases the correct one, is that which traces the phosphorescence of the sea to the decomposition of various animal substances, more especially to that of the flesh of *fishes and cetacea*. This theory, propounded by Commerson in the manuscripts which are deposited in the library of the Museum of Paris, has reckoned amongst its advocates Bory St. Vincent, Oken, and others. As early, however, as the commencement of the last century, accurate observations had been made on the subject, and the evidence of noted travelers, and that of eminent naturalists and physiologists, soon placed it beyond a doubt,

that a great number of marine animals possess *during life* the attribute of luminosity—the property of emitting light.

As far back as the year 1705, *Viviani*, Professor of Natural History at Genoa, had discovered in the environs of that city, and had described in a memoir devoted to the subject, as many as fourteen species of luminous animalculæ. To their presence he attributed the phosphorescence of the seas of his country.

Again, *Spallanzani*, having dissolved in milk the luminous mucosity that flows from the Medusæ,* thereby rendered the first-named liquid luminous to such a degree, that he was enabled to read by the light emitted from a cupful of it.

Scharr having established the existence of phosphorescence in certain flexible polyparies, attributed to these the phenomenon in general.

Vianelli referred it to a species of Nereid;† *Rigaut*, to an animalcule at present known as "Noctiluca," which we shall consider in detail hereafter; *Henderson*, to the Scyllari and Salpæ; that is to say, to Crustacea and Mollusca; and so on.

In our day every thing tends to prove that the sea possesses its *phosphorescent fauna*, as does the land. Catalogues of both have been published.

That of the phosphorescent marine invertebrates was no doubt complete when it was prepared by the learned professor (Van Beneden) at the University of Louvain, but this is certainly the case no longer. The more marine animals are studied, the more numerous are found to be those which possess the light-emitting property. I could, from my own observations, add to this list at least two or three species of Polynoë; one or two species of Syllis,‡ some species of an allied genus—some Crustacea, two or three species of Ophiura,† etc., etc.

And now, let us ask, how much of the phosphorescence of the ocean is due to the aggregation of all these forms? Undoubtedly the major portion—ay, perhaps it is to this alone that the more magnificent phases of the phenomenon must be attributed.

This assertion may, perhaps, appear strange to those who judge of the spectacle presented at sea by what they have

* Jelly-fishes. † A swimming worm.

‡ Polynoë and Syllis are also natant worms.

† Brittle stars.

been enabled to witness on land arising from similar causes; for there, neither *Lampyris*, *Fulgora*, nor *Elater*,* has transformed the greensward into a flaming prairie, nor do these insects convert the bushes into blazing underwood.

But the sea is far more prolific than earth and air together, and produces its thousands for one that is created and nourished by the latter; as though it would justify, even in our days, the old fable in which it is designated the first parent of all living things.

In none of the observations that I have myself made on this phosphorescence, in none of the experiments that I have tried for the purpose of testing the accuracy of my views, have I ever discovered aught but animals, and those, *living animals*. At Chausey, at Bréhat, or wherever else I may have established the existence of phosphorescence, I have frequently tried to ascertain the cause of those brilliant sparks which shone and disappeared again with the rapidity of lightning. In the water itself I generally found minute Crustaceans, whilst under the stones, and upon the fucus, the luminosity appears to have originated in Annelides and Ophiuridæ.

These results suffice to explain all the circumstances attendant upon the mode of phosphorescence which we are now considering. Natant, or swimming Crustaceans, which lead a wandering life, are never found congregated in sufficient numbers upon one spot to cause the scintillations of individuals to become fused or amalgamated in such a manner as to produce a uniform tint or sheet of light.

The Ophiuridæ and the most minute Annelides, owing to their diminutive proportions, are unable to emit an amount of luminosity sufficient to become united with that of their neighbors; consequently, we find the light which these animals produce to be exhibited in points, often very closely approximate, but never completely fused together.

In the intertropical seas, or in the Mediterranean, and occasionally even on our own shores of the Atlantic Ocean, animals of larger proportions, or such as live in colonies, are found associated with those

just named. These necessarily impart greater *éclat* to the phenomenon, but do not by any means change its general character. In this, as in the ordinary cases that present themselves on our shores, the partial phosphorescence is due to the presence of animals, and those animals are in a living state.

And now let us inquire whether the same observations are applicable to *general* or *diffused* phosphorescence—to that phase which imparts to the water, when agitated, the appearance of a fused metal bespangled with scintillations of even greater brilliancy than the glowing surface?

Whoever has merely witnessed the phenomenon would at once unhesitatingly proclaim this to be impossible. He sees, as it were, a sheet of flame spread out before him, whole waves being rendered luminous; and, having steeped his hands in the water, he finds, on withdrawing them, that they too are washed with light! Is it possible, then, to arrive at any other conviction than that this magic influence arises from some substance which is held in solution by the water?

And yet, in every case that I have investigated with the strictest scrutiny, I have found it to be otherwise. The most elaborate researches, as well as the most homely experiments, that I have undertaken, have always satisfied me, beyond a doubt, that even this mode of phosphorescence is due to living animals; not, in this instance, to *Crustaceans*, but to *Noctilucae*.

We shall presently revert to the special consideration of these singular forms of life, which play so important a part in one of the most splendid phenomena afforded by nature. Let us be satisfied, at present, with observing that the *Noctilucae* present the shape of little spherules, or rather of diminutive *melons*, whose largest diameter is one third or half a millimètre.* Their specific gravity is rather less than that of sea-water. Allowed to rest in a liquid which is in a perfectly undisturbed state, they form a layer or coating at the surface, just in the same manner as a number of corks would

* *Lampyris*, the glow-worm; *Fulgora*, the lantern-fly; *Elater*, the fire-fly. These three insects are luminous; and *Elater noctilucus* is said to be occasionally used in South-America in place of a candle.

* A mètre, the French standard measure, is 39·33 inches; a décimètre, centimètre, and millimètre are respectively the 10th, 100th, and 1000th part of a mètre. The diameter of *Noctiluca* is, on the average, one fiftieth part of an inch.

do; but the least agitation mixes them up with the fluid which before supported them at the surface.

Now, their number is so great that it suffices to produce all the appearances already indicated. Of this the following figures will afford a sufficient proof. I once took some water from a very brilliant wave, and with it filled a tube, one décimètre (about four inches) in height. After it had been permitted to stand a few minutes, the layer formed by the aggregation of the Noctilucae was one and a half centimètres in thickness; consequently, the animalculæ constituted a seventh of the whole mass of fluid. On drawing the water from the *surface* only of a wave just breaking from a beach, (skimming it, as cream is taken from the milk,) I filled therewith a large goblet. The total height of the liquid was fifteen centimètres, (between five and six inches;) that of the layer of Noctilucae, five centimètres, or about one third of the mixture which I had collected. This is the highest ratio obtained by me; but at False Bay, M. de Tessau found the proportion of animalculæ to be one half. Without taking into consideration any diversity of species which may exist in those latitudes, this estimate of numbers alone suffices to account for the far greater brilliancy of the phosphorescence there, as compared with the phenomenon with us. It is easy to comprehend how so vast a multitude of luminous corpuscles, disseminated through a body of water, may present an illusory appearance to the eye, just, for example, as the fine molecules of earth, held in suspension in the liquid which they cloud, impart to it a distinct homogeneous color.

But here again are other experiments that place the question beyond all doubt.*

If water, charged with Noctilucae, and which appears uniformly luminous, be poured into a narrow glass, or in preference, into a tube seven to eight millimètres in diameters, it will at once be perceived that this water is illuminated only in isolated places. If the luminous points be examined with a pocket lens, the animalculæ are easily distinguishable, and it then becomes apparent that they alone

are phosphorescent, whilst the surrounding liquid is perfectly obscure.

After the tube has been allowed to stand for a few minutes, the Noctilucae rise to the surface and form a luminous layer, below which the water is totally deprived of its phosphorescence.

In order to restore to the liquid its original appearance, it suffices to agitate it slightly, whereby the Noctilucae are once more disseminated throughout the whole body of water.

In the same manner as the naturalists referred to, I have subjected luminous water to filtration. (A rather fine handkerchief suffices for the experiment.) The Noctilucae remained upon the linen, to which they imparted a brilliant light; whilst, on the other hand, the filtered liquid presented no signs of phosphorescence, notwithstanding every means employed to promote it. When the Noctilucae were carefully washed from the filter, and placed in water that was previously dark, they at once imparted to it a phosphorescent appearance. Without entering into further details, I think that these experiments, which may be repeated by persons possessing even the most limited facilities, serve to show that, notwithstanding any appearances to the contrary, the diffused phosphorescence of the ocean is due to the presence of these Noctilucae.*

But, we may be asked, whether we mean to imply that this is the sole cause of the phosphorescence. By no means. It may be that, as Newland surmises, in some cases, the spawn of certain fishes contributes to its manifestation, or perhaps, in certain exceptional cases, it may be due to some extent to the presence of animal matter, similar to that which is formed on the surface of putrefying fish, and which may become dissolved in the water, as suggested by M. Becquerel, so as to communicate to it a luminous property. Nevertheless, in the presence of facts so clearly established in Europe by several naturalists, and in the latitude of

* It follows, as a matter of course, that the Noctilucae may contribute to the manifestation of *partial* phosphorescence as well, when, as I have often seen them, they are greatly disseminated; and, on the other hand, it has happened that in waves presenting the uniform luminosity which I have called *diffused* phosphorescence, I have met with the more brilliant scintillations produced by Annelides and Crustaceans mixing their light with that of the Noctilucae.

* Most of these experiments were first tried by Suriray, a doctor of Havre; they were repeated by Blainville and M. de Tessau; M. Verhæghé added to them, and I myself repeated and diversified them in various ways.

the Cape by M. de Tessau, observations of the utmost precision would be requisite to confirm the varying opinions to which we have just referred. It would be necessary to demonstrate, with the aid of the microscope, that the objects perceptible to the eye were *ova*, and not *Noctilucae* or some similar animalcules; and to prove, by means of the same instrument, the existence of an organic deposit, or, in the latter case, it would have to be shown that the water was still phosphorescent after passing through the filter.

But even if the accuracy of the theories propounded by Newland and M. Becquerel could be proved by observation and experience, in certain special cases, it would still remain an undoubted fact that the phenomenon of which we are treating is essentially due to the presence, in great numbers, of *Noctilucae*.

All the researches of the past century, therefore, lead us back to the conclusion arrived at by Rigaut as early as the year 1764.

From the Popular Science Review.

THE SUN AND SOLAR PHENOMENA.*

BY JAMES BREEN, F. R. A. S.

DURING the past year, the sun has been in an extraordinary state of perturbation, and it need scarcely be added that those observers who take an interest in solar phenomena have been in a corresponding degree of excitement. The surface of the great central luminary has broken out into an eruption of dark spots, and the telescope can scarcely be pointed toward it for a moment without our perceiving several clusters of those irregular and strange-looking blotches which dim its otherwise glowing orb. No alarm, however, is created among astronomers by the unusual number of those specks; their return in such plenty is purely periodical, and it is not in the least expected that they will go on increasing indefinitely, but rather that they will gradually diminish in dimensions, as well as in numbers, during the next five years; again, however, at the lapse of this interval, to recommence the cycle of their wonted appearance in more considerable groups. It is not in the least feared that the sun's light will be obscured, or its heat lessened, by those

motes which are commingled with its beams; it will still germinate, nourish, and ripen fruit and flower—still produce rain and whirlwind—still purify and revivify our atmosphere by lighting—still go on effecting those mighty changes on land and water which render our globe habitable. Lagrange has proved and foretold the invariability of the seasons on the earth. Equally satisfied are observers that, notwithstanding the continual changes on its surface, they shall see, for ages yet to come, the sun's light reflected from planet and satellite during the night in the same degree as they see its fiery glow from hill and dale during the day. Its light, passing through showers of ice-crystals in the distant summer atmosphere, will continue to produce those white circles, (or halos, as they are termed,) visible at times round its luminous disk; by means of the sprinkled water-drops it will still paint in colors of unequalled splendor the brilliant rainbow, which, like hope, may rest upon the darkest and most somber cloud in the heavens. The rosy fingers of Morn shall still open the curtains of the East, and the crimson sunset still make its appearance, whilst both will preserve their

* With an account of the eclipse of the sun in 1860, as seen by the author in Spain.

usual tints, as if the violent agitation proceeded not on the surface of the sun.

The *statistics* of the sun's weight, and distance, and size are so well known, that it may here appear out of place to repeat those data. As an illustration, however, of its overwhelming size, we may state, that if all the planets of the system were rolled up into one mighty ball, still, however, this would appear a mere pigmy in comparison with the vast globe of the sun, which would fill a space some six hundred times larger than this great collection of matter. If the heavy rocks and minerals of the interior planets were macadamized and mixed up with the clay and sand and water of the exterior ones, it would be found that, light as are the materials of which the sun is composed, its mass would outweigh not less seven hundred and thirty-eight of such fictitious globes piled up in the opposite scale. It would take more than three hundred and fifty thousand globes like our earth to weigh it down. The ocean of fire which surrounds it is more than twenty thousand times greater than the surface of the Pacific Ocean, and more than twelve thousand times greater than the area of the whole earth. The domain over which it presides would be considered marvelously great were we ignorant of the vastness of the starry spaces, or of the infinite number and distances of those luminous objects of which the sun in all its glory represents but a single unit. In comparison with those spaces, which a ray of light takes years to traverse, how small is our distance of ninety-five millions of miles from the central body! how small even the distance of the exterior planet Neptune, when, representing the vast dimensions of the sun by a ball only two feet in diameter, and preserving the same scale throughout, we should have Neptune about the size of a plum at a distance of a mile and a quarter from the body round which it revolves!

In the telescopic aspects of the other planets we perceive many striking similarities with the economy of our own globe; mountains on Mercury and Venus, snows on Mars, trade-winds on Jupiter and Saturn; the alternations of day and night, and many signs of the existence of atmosphere, on all the planets. They are illumined by the same light, warmed by the same heat, and pursue their courses around the same fixed-star as the earth. But another world opens when the atten-

tion is directed toward the sun. The blue and limpid atmosphere of the earth bears no analogy with the dense and fiery crust which surrounds the solar orb. Immense openings, more like the bursting forth of a volcano, where the lava is thrown aside in torrents, and the whole surface is a sea of liquid and seething fire, have no similarity with the feathery clouds or drifting masses of light vapor which are seen in the atmosphere of the other bodies of the system. Imagine a degree of heat some three hundred thousand times greater than that which exists on the earth, and which would turn our purest metals into fumes! No end of wild conjectures or grand conceptions can be made in connection with the scenery of this new world.

"What wonder, then, if fields and regions here

Breathe forth elixir pure, and rivers run
Potable gold, when with one virtuous touch
Th' arch-chemic sun, from us so far remote,
Produces, with terrestrial humor mixed,
Here in the dark so many precious things
Of colors glorious and effects so rare."

It must not be forgotten, however, that the principal error of those who start theories on the light and heat of the sun—who would reduce those elements to material fuel and agency—has been in their supposition that the sun and planets—the donor and the recipients—are bodies of a similar nature, and that the same conditions are general throughout the system, whether it be star or planet, satellite or comet.

Those who have looked at the sun with a telescope of even moderate power, have, of course, observed the dark spots on its disk. They have seen them of every conceivable size and form, and it very seldom happens that they have any appearance of regularity further than that they are commonly approximately circular. These spots are surrounded by a lighter shade, which is mostly of the same form as the central speck, and which seems like a fringe of less dense material, parting abruptly from the more obscure kernel which it incloses. This intermediate shade does not mix with the densely black nucleus, at the same time it is distinctly separate from the illuminated surface of the sun. This is most strictly true in every instance: the *nucleus* or spot proper is of one tint, and that a very intense black; the *penumbra*, or fringe,

of an equally constant though much milder degree of shade—a sort of half-mourning; whilst the brilliant lustre of the solar surface makes a third tint. There are thus three distinct and sharply-defined grades, and these facts must be strictly borne in mind by all those who would endeavor to explain the physical constitution of the sun. Sir W. Herschel accounted for it in this manner: The outer luminous surface which it blinds us to look at he considered is composed of a fiery and clouded matter supported by a transparent medium similar to our atmosphere. When the bright envelope, either from volcanic disturbance or other agitation within, or from currents from without, is broken, we perceive the upper portion of the inner atmosphere illuminated by the light which it receives from above, and at the same time we see through the opening the dark body of the sun itself. There can be no doubt but that the spots are pits or holes gradually shelving down into the sun's body. This can be immediately seen by following any well-defined and round spot as it is carried across the disk by the sun's rotation on its axis, (in twenty-five and one quarter days;) but the above explanation is, after all, only a conjecture, though the most plausible which has been broached on the subject. Secchi has measured the depth of those wells, and found them to be about one third of the diameter of the earth, or about twenty-six hundred miles in profundity. After an attentive study of the spots, Sir John Herschel says: "The idea conveyed is more that of the successive withdrawal of veils—the partial removal of definite films—than the melting away of a mist, or the mutual dilution of gaseous media. Films of immiscible liquids having a certain cohesion, floating on a dark or transparent ocean and liable to temporary removal by winds, would rather seem suggested by the general tenor of the appearances; though they are far from being wholly explicable by this conception, at least if any considerable degree of transparency be allowed to the luminous matter."

But having gazed, to his heart's content, at the nuclei and penumbra, the observer will, no doubt, scrutinize the remaining portion of the sun—the luminous surface—with much interest. Here, again, new variations of light and shade

meet his gaze. Let him first take the whole surface of the sun into view; he will at once observe that at the edges the light becomes gradually dimmer, and that the contrast between the center and the margins is very great in this respect. By placing a sheet of paper (instead of the eye) a short distance from the eyepiece of the telescope, when an image of the whole surface of the sun is obtained, this difference of luminosity is immediately perceived. It is argued from this, that there is an atmosphere extending considerably beyond the apparent surface of the sun, imperfectly transparent, which prevents the solar light from coming to us with the same intensity whilst traversing great thicknesses and different strata of air, with that where it passes in a simple and direct line, as through our zenith, or the center of the sun. With this luminous surface of the sun no other light can compete. The most brilliant artificial flame appears as a patch of smoke on the disk of the orb of day. It has been found that the brilliant light given forth by the ball of ignited quicklime (invented by Lieutenant Drummond) is only equal to the one hundred and forty-sixth part of the light at the surface of the sun. M. Foucault has, however, by passing the current of the voltaic pile through certain metals, found in the electric light produced, when decomposed by the prism, brilliant bands superior in brightness to the corresponding bands furnished by the rays of the sun. Scrutinizing this luminous surface with high powers, we further perceive that the light is not uniform, but that it is covered with bright points, giving it a porous appearance, which has been aptly compared to the skin of an orange. At the last meeting of the Royal Astronomical Society, a photograph, taken by Mr. De la Rue, was exhibited, which represented this rough surface with the greatest accuracy, much more perfectly than could be possible in any engraving. Those bright specks very frequently attain to much greater dimensions, and are often visible, particularly at the margins of the sun, under the form of long serpentine and bright blisters, much more lustrous than the ordinary surface of the sun, however bright that may be. All these are as changeable as the spots. These bright streaks (or *faculæ*) are proved to be considerably elevated above the surface of the sun. Thus

we find that if the sun exercises great influence on the surface of our globe, it must be acknowledged that its own atmosphere is equally disturbed, though the causes of those changes are less explicable. The spots and bright streaks are continually appearing and disappearing, varying in form and size, breaking up or collapsing every hour. Sometimes they take the form of a whirlpool, and even seem to have a sort of spiral or rotatory motion. Any observer, with a fair telescope, is able to perceive all those phenomena; and in no other subject of practical astronomy is the aid of the amateur so useful in determining the positions and annual number of the spots. To another object constantly accompanying the sun, but best seen in our latitudes during the spring evenings or autumn mornings, the services of the amateur are very valuable. We allude to the cone of faint light seen after sunset or before sunrise along the ecliptic, and which has hence obtained the cognomen of the zodiacal light. Humboldt has searched in vain for any allusion to it previous to that of Childrey, in 1661; but an admirer of Shakspeare might, perhaps, think that this phenomenon was described in the lines—

"Yon light is not daylight, I know it, I:
It is some meteor that the sun exhales," etc.

in contradistinction to the breaking light of morn. The keen eye of M. Goldschmidt was able to detect, at the last appearance, a faint offshoot from this mysterious light, and which was observed on the same night at a different part of the world. To those endowed with sharp vision, the systematic observation of the direction and dimensions of this object would be a matter of much value.

One of the Elizabethan dramatists says: "Better to bless the sun than question why he shines." Notwithstanding this, how many conjectures have been formed on this subject! Our forefathers, who were ignorant of the voltaic pile and electricity, attributed the light and heat of the sun to material fire. May there not be other agencies unknown to us which would explain the incandescence of the sun? An eminent authority, whilst favoring the idea of a perpetual electric discharge, frankly confesses that every discovery of this kind seems "to remove further the prospect of probable explana-

tion." In addition to the energetic action of the currents of the galvanic pile, other remarkable ideas have been started. It has been demonstrated by Thomson and Watherston that if five pounds of cosmical matter were to fall on each square foot of the solar surface, and the body was going at the rate of three hundred and ninety miles per second, the heat and light resulting from the shock would be sufficient to account for that actually existing on the sun. Those falling bodies must be searched for in the shooting stars, and probably in the zodiacal light. Messrs. Carrington and Hodgson have witnessed a phenomenon which favors this conjecture, (a portion of the solar surface blazing suddenly for an interval of about ten minutes,) yet the theory which attributes the lustre of the sun to the continual formation of torrents of electricity engendered by the clouds of the various envelopes, would seem to obtain the greater number of suffrages among astronomers.*

It might be added that, as the northern lights sensibly affect the magnets, it has been noticed that the phenomena connected with the sun also appear to exert a certain influence on them. General Sabine has shown that the maximum variation of the needle corresponds with the greatest abundance of the solar spots. The dependence of the magnetic intensity on the solar altitude is well known; and it has also been found that the earth's magnetic force is greatest at those seasons when our globe is nearest the sun. Ad-

* Professor Thomson considers that meteoric action is the only explanation which can be given in respect to the heat and light radiated by the sun. Chemical action is insufficient to account for it, whilst meteoric action depends on independent evidence. The former could generate only about three thousand years' heat, the latter would account for twenty million years of solar heat. And what a degree of heat too—sufficient to keep up a sixty-three thousand horse power. Each square yard of the solar surface representing the consumption of thirteen thousand five hundred pounds of coal per hour, and where forty feet thickness of ice would thaw per minute. At the Cape of Good Hope, under a vertical sun, only one inch of ice would melt in two hours twelve minutes and forty-two seconds. It may be added that according to the theory of Mr. Watherston, the debris and fragments of broken material which would fall and batter into the sun would (if of the density of granite) cover the surface to a depth of twelve miles annually, whilst according to the hypothesis of Professor Thomson, a thickness of twenty-four miles would fall into it, from the matter of Zodiacal light coming in contact with its photosphere.

miral Smyth may well say, on this subject, that a "wonderful coincidence seems to be satisfactorily established therein, a mine is sprung, the extent of which he is a bold man who will venture to predict, although inductive experience is allowed to adopt the tone of prophecy."

It will be seen that the various phenomena of spots, whether dark or brilliant, and all the different changes in their form and motion and number, are not mere objects of idle curiosity, but intimately connected with the economy of our own globe. Should the persevering observer merely count the number of spots which he remarks on the solar surface in the course of a year, he would confer a boon on science. If, in addition, he accurately determines their positions by Mr. Carrington's plan, the series of observations would be extremely valuable. That eminent observer has discovered a law of storms in the sun's atmosphere, there being a daily drift of the spots in longitude which reveals a general equatorial current of thirty degrees in breadth in the direction of rotation, whilst a reverse current of nearly the same breadth is perceptible beyond it in each hemisphere. We are indebted to M. Schwabe for a systematic reckoning of the number of spots visible since 1826. In 1828 the number of groups was two hundred and twenty-five, which gradually diminished to thirty-three in 1833. In 1837 they had increased to three hundred and thirty-three; and in 1843 they had fallen to thirty-four. By 1848 the number had again increased to three hundred and thirty; whilst in 1856 only thirty-four were visible. In 1860 they had increased to two hundred and ten; and in the years 1861 and 1862 will, doubtless, be greater. It must be remembered that all these changes are gradual. The periodicity is undeniable, and may be reckoned at about eleven years, though it does not appear to be constant, sometimes amounting to nearly fifteen years (as the minima of 1784 and 1799,) sometimes being only eight years and a half (as the minima of 1689 and 1698.) The observer will perceive, too, that the zones of disturbance are different year by year; sometimes the spots are confined wholly to the sun's equator; at other times wholly north, sometimes altogether south of the equator. They seldom pass beyond forty degrees of latitude. That they are inti-

mately connected with the rotation of the sun on its axis there can be no doubt, but that it is solely due to this cause is impossible. There must be external atmosphere or internal agitation to cause those immense ruptures (one of which was measured at thirty-seven hundred and eighty millions of square miles in area) which precede the effect produced by rotation. The amateur astronomer will see what a rich field is opened to him in the path of discovery by diligent observation of the solar spots alone, remembering

"No earnest work
Of any honest worker, howbeit weak,
Imperfect, ill-adapted, fails so much
That 'tis not gathered like a grain of sand
To enlarge the sum of human action used
For carrying out God's end."

Strange to say, it is when the sun is entirely hidden from view (as during the darkness of a solar eclipse) that we become best acquainted with its clouds, its atmosphere, and the general phenomena of its surface. Look at those two illustrations representing the appearance of the sun, or rather the light surrounding it, and the moon at the last two solar eclipses of 1858 and 1860. What strange forms are beheld in the halo or glory about the moon! What are those crimson flames? Are they our old friends the bright streaks of light—the faculæ? Is it this corona or glory which is the suspected outer atmosphere of the sun, and which causes that dimness of the sun's light toward the margins which has been already mentioned? Does it buoy up and float those cloudy protuberances for some forty or fifty thousand miles above—not the real surface, but the outer photosphere of the sun? These are questions which, notwithstanding that they have been critically observed during the solar eclipses of 1842, 1851, 1858, and 1860, still remain undecided. Some savans hold that they are purely optical, caused by the sunlight striking the edges of the moon—the effects of that phenomenon in optics known by the name of *interference*, that is, when light passes by any rough edge, and produces certain colored fringes to the ray which is received on a screen. Are those ruddy prominences produced in this manner? In the first place, they are too sharply defined to have their origin in this way; in the second, they have been seen to in-

crease in length as the moon passed away from them, and to decrease in dimensions as the moon passed toward them. This circumstance, which was confirmed by many observers, would seem to be conclusive of their being part of the real body of the sun, that the red flames are the faculæ, that the corona is the luminous atmosphere of the sun. But how are these strange rays of light produced in the corona? How are we to explain that they appeared on the left when total darkness commenced, and to the right when the moon was leaving the disk of the sun? The Astronomer Royal is of opinion that the atmosphere of the earth extends all the way to the moon, and that the light is reflected by this atmosphere. There are methods even of detecting whether such is the case, and in the present instance it was found that the light from the corona was reflected light, and reflected too by the atmosphere of the earth. Another celebrated astronomer, at the same time that he believes in the existence of an atmosphere around the sun, still considers that the extraordinary rays of the corona are optical; and he has even been able to produce them artificially, by introducing a circular screen between the eye and the rays of light coming through an aperture in the walls of a dark chamber. But so many discrepancies exist between observers, that it is quite impossible to reconcile the accounts. Red prominences were seen by one observer which were quite invisible to his neighbor. Protuberances which were seen red at Miranda were seen white at Valencia. The rays of the corona at two different stations at the same moment were in different directions. Strangest of all, the decrease of the eastern protuberances, like the increase in the western, were more rapid than the moon's motion would allow of. There can be no doubt, too, but that the rays of the corona were seen curved, intermixed, and even tangential to the edge of the moon. We may state that the illustrations have not been selected by us on account of their eccentricity: both drawings have been made by very eminent observers—the one of the eclipse of 1858, by M. Liais; and that of 1860, by M. Feilitzsch, who had previously observed the eclipse of 1851. The latter observer noticed that the corona was much bright-

er in the last eclipse than in that of 1851.*

The most trivial incidents during a total eclipse of the sun are watched with the greatest interest, particularly during those few moments when total darkness overspreads the earth. Having been stationed near Reynosa, in Spain, in company with Messrs. Buckingham and Wray, the writer was able to observe the last eclipse of 1860. First comes that gradual march of the moon over the sun, which latter, even when half obscured, is not sensibly diminished in lustre. Then the gradual warning of the crescent of the sun, until it is reduced to the merest thread of light, and then the obscurity begins. The thread of light is irregular, as we see by means of the telescope, and whilst we are looking at it, (now invisible to the naked eye,) we notice that it is broken up into fragments, brighter than stars and somewhat resembling electric sparks. Now between the broken sparks, the first rays of the corona break out with the brilliancy of a glory; in another moment, the sun is completely hidden; the dark velvet surface of the moon is seen projected on the silvery corona, and all is in obscurity—a darkness not complete like that of night, yet something altogether different from twilight or the gloom of a rainy winter evening. The scenery around was illuminated, not only by the light of the corona, but by the more remarkable light which was seen in the southern horizon. For an altitude of some fifteen degrees, towering above, and in the direction of the plains of Castile, we saw the most glorious crimson and yellow tints coloring the sky and meeting the dark-blue clouds above in a rich purple. The effect was magical—almost similar to the earth illumined by a splendid aurora; or, rather, imagine passing from the brilliant sunshine into a Gothic cathedral, where the dim religious light enters through richly-colored oriel and lancet windows—one may thus have a faint idea of the gloom—singular and terrible at the same time, which is produced by a solar eclipse. The hushed whispers of those around who pointed to some bright star or planet overhead, added to the solemnity of the scene and the somber

* For remarkable differences of drawing, we refer to the diagrams in the Astronomer Royal's Lecture as given in the *London Review* of September twenty-first, 1861.

faces of the worshipers, put one as much in mind of the countenances of the witches round the caldron in *Macbeth* as of the witnesses of a great natural phenomenon. When the darkness was at the greatest, the wind moaned with a melancholy sound, "le vent de l'éclipse," our neighbors call it, and did not serve to raise one's spirits. The pigeons rushed to their dovecot—butterflies fell down as if dead—a vulture seated on a rock on a neighboring hill dropped as if shot—a group of goats formed into line and marched in the direction of home—the matutinal chants of chanticleer were intermingled with the sounds proceeding from the maternal cares of the feathered domestic tribes of the farmyard in which we were situated. Such effects of the darkness came under our own notice. And although we found that the boasted clearness of "le beau ciel de l'Espagne" was rather a myth and might be aptly compared to the famous "châteaux d'Espagne" (*Anglicè*, castles in the air,) yet we did not think our journey from the banks of the Seine, across the Loire, the Garonne, and the Adour, altogether lost, even although we came across much unfavorable weather near the source of the Ebro; and met not only with snow to the depth of eight feet on the mountains, (in the middle of July,) but with solid mist

and fog which could only be paralleled in November in London. Although we perfectly perceived the corona, yet it was too cloudy to detect the ruddy prominences; so that our evidence is negative in this respect, and it proves that the first-named was brighter than the latter, which some observers deny. The broken crescent, if not the Baily beads, were seen to great advantage by Messrs. Buckingham and Wray, as well as by the writer, and the extraordinary brushes of light from the corona, crooked and intermingling with each other, were likewise plainly visible to all the party. We have heard of Spaniard and Moor crouching with terror during the darkness; but although we were in the midst of a crowd of the former nation, and a rural population too, we did not see it, and can scarcely believe it. As many discrepancies exist, however, between the statements of ordinary observers as between those who looked at the solar phenomena through a telescope. To one observer the darkness appeared to last only two minutes, (it was upward of three;) to another, such the sense of oppressiveness, that the interval between the disappearance and reëappearance of sunlight seemed to endure for two hours!

These are a few of the phenomena connected with the orb of day, the source of light and heat in our system of worlds.

From Fraser's Magazine.

H U M M I N G - B I R D S .

MANY of our readers who visited London on the occasion of the first great International Exhibition, will doubtless remember with pleasure a contemporaneous exhibition of peculiar interest at the Zoölogical Gardens, which, though lifeless, possessed nearly, if not quite, as much attraction as the noble collection of living animals in those charming gardens.

We allude to Mr. Gould's collection of humming-birds, which, independently of

the great interest attached to it from its complete character, is most remarkable for the marvelous beauty and singularity of individual specimens, and for the perfect manner in which the small birds are stuffed, mounted, and arranged.

Mr. Gould has long taken rank as the most eminent of our ornithologists. His great works, got up at an expense which the boldest of publishers would be slow to incur, are remarkable for their magnificence and intrinsic excellence, and his

collection of unstuffed birds is probably one of the largest in the world. An intense lover of birds, keenly alive to their beauties, we can well understand how his attention was drawn at an early period of his life to the glory and loveliness of the numerous family of humming-birds, and that he contemplated every new species of these winged meteors with enthusiastic delight. But though thus warmly devoted to this branch of ornithology, he refrained from indulging his desire to collect humming-birds, because Mr. George Loddiges was forming a collection of them. But upon the decease of that estimable man, Mr. Gould, who had long been aware that Mr. Loddiges' collection, though at that period unrivaled, was very far from complete, determined to form a collection of his own. His numerous ornithological correspondents and friends throughout the globe gave him great facilities for the undertaking. He had already, through their instrumentality, considerably enriched Mr. Loddiges' collection, and the machinery for collecting being in admirable order, it only needed to be set in motion. But it must not be supposed that difficulties did not arise — no great work has ever been accomplished without the intervention of formidable difficulties, the overcoming of which contributes much to constitute its greatness. And, among the many examples presented to us of the power of a strong will to attain a definite object, few are more notable than that afforded in the present instance. For, not only has Mr. Gould succeeded in forming a collection of humming-birds at once unparalleled for its completeness and beauty, but he has immortalized them in a work extending to five folio volumes, which we have no hesitation in saying is one of the greatest triumphs of art that has ever issued from the press. How well Mr. Gould has succeeded, and how incomparably superior his collection of humming-birds is, compared to those of his predecessors, will be understood, when we state that the great French work of Audubert and Vieillot, the *Oiseaux Dorés*, published in 1802, contains only seventy plates of humming-birds. Lesson's great work on the *Oiseaux Mouches*, published between 1829 and 1833, enumerates no more than one hundred and ten species, whereas Mr. Gould's monograph numbers four hundred and sixteen, all of which

are figured in the magnificent work just completed. But, great as is this number of species, many more probably exist. For, with becoming modesty, Mr. Gould observes :

"If I am asked what is our present knowledge of the existing species of humming-birds — and may there not be others to be discovered in the great primeval forests of the western and other parts of the vast continent of the New World? — my reply is, that in all probability, many more than are known to us do exist, and a very lengthened period must elapse before we shall acquire any thing like a perfect knowledge of the group. Whatever I may have done toward the elucidation of the subject, I must only be regarded as a pioneer for those who, in future ages, will render our acquaintance with this family of birds so much more complete than it is at the present time."

The history of the discovery of humming-birds already known to us confirms this :

"Whole groups (says Mr. Gould) remarkable for their singularity, have become known to us from the inquiries and explorations of later travelers; and abundant as the species may be toward the northern and southern portions of the great chain of mountains, they vastly increase as we approach the equator. These equatorial regions teem with species, and even genera, which are not found elsewhere. Between the snow line of the summits of the towering volcanoes and their bases, many zones of temperature occur, each of which has its own especial animal and vegetable life. The Alpine region has its particular flora, accompanied by insects especially adapted to such situations; and attendant upon these are peculiar forms of humming-birds, which never descend to the low valleys, and scarcely even to the cooler and more temperate paramos. Many of the highest cones of extinct and of existing volcanoes have their own faunas and floras: even in the interior walls of ancient craters, wherever vegetation has gained a footing, some species of humming-birds have there, and there only, been as yet discovered."

It was by exploring these localities that Mr. Gould has been enabled to swell his collection of humming-birds to above four hundred, and when we bear in mind the difficulty and great danger attending these lofty mountain explorations, we can hardly applaud too highly the energy and devotion of Mr. Gould's correspondents.

Another matter of surprise must be the amazing number of different species of humming-birds, so numerous that Mr. Gould, anticipating a doubt on the part

of some persons, that four hundred species of birds so diminutive in size and of one family can scarcely be distinguished from each other, assures us—

“That any one who studies the subject will soon perceive that such is not the case. For even the females, which assimilate more closely to each other than the males, can be separated with perfect certainty; nay, even a tail-feather will be sufficient for a person well versed in the subject to say to what genus and species the bird from which it has been taken belongs. I mention this fact to show that what we designate a species has really distinctive and constant characters; and in the whole of my experience with many thousands of humming-birds passing through my hands, *I have never observed an instance of any variation which would lead me to suppose that it was the result of a union of two species.*”

We have italicized these words on account of their strong antagonistic bearing to the Darwinian theory, and request particular attention to what follows:

“I write this (adds Mr. Gould) without bias one way or the other as to the question of the origin of species. I am desirous of representing nature in her wonderful ways, as she presents herself to my attention, at the close of my work, after a period of twelve years of incessant labor, and not less than twenty years of interesting study.”

Remembering the number and variety of these aerial gems, it must be conceded that it was a bold conception to think of portraying them in a manner at once truthful, effective, and satisfactory to ornithologists.

“Numerous attempts (observes Mr. Gould) have been made at various times to give something like a representation of the glittering hues with which this group of birds are adorned, but all has ended in disappointment; and the subject seemed so fraught with difficulty, that I at first despaired of its accomplishment. I determined, however, to make the trial; and after a series of lengthened, troublesome, and costly experiments, I have, I trust, partially, if not completely, succeeded.”

We well remember the disappointments to which Mr. Gould alludes. For it has long been our privilege to be admitted into Mr. Gould's working-rooms, and we can attest how diligently and zealously he labored, canceling plate after plate, regardless of cost, until at last he succeeded in producing the brilliantly beautiful and exquisitely truthful repre-

sentations of the lovely birds enshrined in his great monograph of the Trochilidæ.

But Mr. Gould's labors have not been confined to merely figuring the various humming-birds which he has collected. In every instance, the birds are surrounded by representations of plants and flowers common to the localities frequented by them; and so beautiful, splendid, and gorgeous are these, that they would by themselves form a work of rare elegance and beauty. Nor are these adjuncts fanciful designs. In all cases they are faithful representations of living plants, many of the originals existing in our noble national gardens at Kew; thus affording another instance of the great value of large scientific establishments; for, as Mr. Gould truly observes, it is only in capitals like London and Paris that undertakings like the present can be successfully carried out.

Unfortunately, but few persons will have an opportunity of seeing this splendid result of Mr. Gould's energy, talent, and scientific knowledge. Five large folio volumes, costing seventy-five guineas, must necessarily be rare books. True, a copy in the fullness of time will be visible at the British Museum library, but that gigantic book emporium is not exactly the place where you would care to linger lovingly over exquisite drawings; and very few institutions have sufficient funds to subscribe to so costly a work. Well aware, however, that the study of humming-birds possesses great interest apart from their pictorial illustration, Mr. Gould has drawn up an introduction to his great work. This contains the result of his researches into the Trochilidæ; and we feel sure that our readers will thank us for giving them some account of a book which abounds with so many interesting details of the habits of humming-birds, that had Mr. Gould published his “Introduction,” instead of printing it for private circulation, it would enjoy a large popularity.

Mr. Gould commences his introduction by answering a question which, he says, is frequently put to him—whence the term “humming-bird” is derived:

“I may state in reply, that owing to the rapid movement of the wings of most of the members of this group, but especially of the smaller species, a vibratory or humming sound is produced while the bird is in the air, which may be heard at the distance of several yards, and that it is from this circumstance that the trivial

name by which these birds are known in England has arisen."

Mr. Gould then proceeds to give the various names by which these lovely creatures are known in different countries. Some are singular enough. Thus, in Germany they are called *Kolibri*; in Spain, *Pico flores*, and *Tumino*; in Mexico, *Ourissia*, *Tzitzitototl*, *Guanumbi*, *Courbiri*, etc., etc.; all metaphorical terms signifying "rays of the sun," "tresses of the day star," "murmuring birds," etc. Their French name—*Oiseau-Mouche*—is probably the most appropriate, as they are literally fly-sized birds.

Linnaeus applies to the whole of the species known to him the generic appellation of *Trochilus*, a name given to some fabulous little bird by the ancients, whence is derived the family designation of *Trochilidae*. The great naturalist was probably led to give these birds this name, from their fantastic beauty and peculiar habits being something similar to those of the above mythical bird; and this is in some measure corroborated by the fact that in Linnaeus' time absurd stories were extant respecting the supposed virtues of humming-birds. Among others it was believed that their powdered bodies were a specific in cases of epilepsy.

It is not a little remarkable that humming birds are confined to the New-World and its adjacent islands. Some persons still maintain, however, that they exist in India and Africa; and Mr. Gould states that he had once a stormy altercation with a gentleman who asserted that the humming-bird was found in England, and that he had seen it fly in Devonshire. The object to which he alluded was the humming-bird moth; and the birds supposed to belong to this family in India and Africa are of a totally different group—the *Nectariniidae*, or Sun-birds—the only points of resemblance between them and the *Trochilidae* being their diminutive size and showy plumage.

But although humming birds are confined to the New-World and the West-Indies, their range in America is enormous. They have been found as high as the sixty-first parallel on the Pacific coast, and as low as Tierra del Fuego, flitting about in snow-storms. The migration of birds is assuredly one of the most interesting studies in natural history. We admire the grand flight of the eagle as he

sweeps through the storm-clouds, but we know the strength of his mighty pinions, and can comprehend how he battles successfully with the tempest; but our admiration is changed to amazement when we find the delicate and fragile humming-bird, scarcely larger than a big bee, and apparently fitted only to adorn a conservatory, passing over vast zones of the globe, and flying through sunshine and storm, heat and cold, from the fiery tropics to the snow and ice of the Rocky Mountains on the north, and Cape Horn on the south.

This migratory habit of the humming-bird enables visitors to the Canadas and North-America to make the acquaintance of one of the most beautiful species. This is the *Trochilus Colubris*, or Red-throated Humming-bird, which migrates in great numbers in summer from the Gulf of Mexico northward. Mr. Gould dwells lovingly on his first sight of one of these charming birds; and we too well remember the first time we saw one of these little creatures. We had landed at Halifax, at the latter end of August, and quite unprepared for the meteor like vision; we were greatly puzzled to account for the flashes of light that darted before us in the gardens of the Government House; until suddenly remembering that we were in the summer-land of humming-birds, we were no longer at a loss to give a name to the lovely aerial beings which, like the hues of roses steeped in liquid fire, now darted joyously from flower to flower, and now hung motionless in the air, probing in the azure blossoms with their long bills.

At a later period of the year, when enjoying the hospitality of Sir John Robinson, late Chief-Justice of Canada, at Toronto, we had the pleasure of seeing the garden on which we looked, glittering with these birds, which darted from tree to tree and flower to flower in countless numbers; and that we may not be thought exaggerating, here is a letter written lately to Mr. Gould, from a gentleman residing in Toronto:

"I wish you could have been with us last summer, you would have an opportunity of watching your favorite humming-birds to your heart's content. I do not in the least exaggerate when I say, that during the time the horse-chestnuts were in flower, there were hundreds of these little tiny creatures about my grounds. While sitting in my library I could hear their

sharp querulous notes as the males fought like so many little bantam-cocks with each other. On one large horse-chestnut tree, just at the corner of the house, they swarmed about the foliage like so many bees, and as the top branches of the tree were close to my bedroom-windows, every now and then one bird more bold than the rest would dart into the open window, and perch upon the wardrobe or the top of the bed-post."

This lovely humming-bird is radiant with glory. The whole of his back, upper part of the neck, flanks, tail coverts, and two middle tail feathers, are of a rich golden green; the wings and tail a purplish brown; under surface of the body white, tinged with green; the throat ruby red, changing, according to the position in which it is viewed, from deep black to fiery crimson or burning orange; while the bill, eyes, legs, and feet are black. Such is the livery of the male, for he alone wears these glorious hues. The female, unlike the daughters of Eve, is a more sober-hued creature, which rule applies to all female humming-birds.

As was to be expected, Mr. Gould made good use of his opportunities to study the habits of this humming-bird. He met it in various parts of North-America, but no where more abundantly than in Mr. Tunstall's gardens at St. Anne's Island, near Montreal, where flocks flitted about the lilac-trees overshadowing the porch beneath which Moore *finished** his celebrated boatman's song.

But our great ornithologist was not satisfied by merely observing these birds in a state of nature. Having procured one from a conservatory at Washington, he had a small gauze net six inches in diameter distended by a light hoop made for its reception; and although sadly buffet-

ed about, the bird within an hour of its capture readily took sugar and water from a spoon held in the hand. This boldness led Mr. Gould to hope that it would soon become familiarized with its little domicile, and he accordingly suspended the net from one of his coat-buttons, and carried it with him wherever he went. Every half-hour he offered it a small bottle filled with sugar and water, into which it thrust its long bill through the gauze bag, pumping up the fluid by means of its more lengthened tubular tongue. Thus caged, suspended, and fed, it traveled with Mr. Gould for two days across the Alleghany mountains, and would, Mr. Gould believes, have continued to thrive, had he not at the end of a dusty and tremendously jolting ride given it a bath to free it from the dirt which had accumulated on its tail and wings during the journey, from the effects of which it sickened and died. This experiment, though terminating thus fatally, testifies that the humming-bird may be easily domesticated, and Mr. Gould hoped that with proper care he would succeed in bringing a pair of these birds to England. Having been presented with a male and female in perfect health and brilliant plumage] by a gentleman in New-York, he had a cage made for them twelve inches long, seven inches wide, and eight inches high. In this was placed the diminutive branch of a tree, and suspended to the side a glass vial, which was daily supplied with saccharine matter in the form of sugar or honey and water, with the addition of the yolk of an unboiled egg. Upon this food the little prisoners appeared to thrive and be happy during the voyage across the Atlantic, until they arrived within the influence of the climate of Europe. Off the west of Ireland symptoms of drooping unmistakably exhibited themselves; but although they never fully rallied, Mr. Gould succeeded in bringing one of them alive to London, where it died on the second day after its arrival at Mr. Gould's house. The ship in which he made the passage took a northerly course, passing over the banks of Newfoundland; and although the cold was rather severe, the only effect, says Mr. Gould, that it appeared to have on the birds was to induce a kind of torpidity, from which, however, they were readily aroused by placing them in the sunshine

* We have taken the liberty to substitute the word "finished" here for "wrote," as Mr. Gould has it. We have done this because it has been our privilege to have seen the original copy of Moore's celebrated song, and pleasure to have had an opportunity of placing it before him again some forty years after he had written it. The facts briefly are these: Moore was accompanied during his travels in America by a gentleman who gave the original of the song in question—which Moore wrote as they floated down the St. Lawrence—to a lady whom we knew; and with this lady's permission the lines were shown to Moore, who authenticated them, and stated that he had written them on the blank leaf of his friend's book as they went down the St. Lawrence.

or in some warm situation, such as before the fire, in the bosom, etc. Mr. Gould adds, that he has seen these birds cold and stiff, and to all appearance dead, and that from this state they were readily restored with a little attention and removal into light and heat, when they would perk up, flutter their little wings, and feast away upon their usual food, as if in the best state of health.

It is worthy of notice that an attempt made some years to domesticate a humming-bird in this country was more successful. A gentleman, a few days before he sailed from Jamaica for England, met with a female mango humming-bird sitting on her nest and eggs, and cutting off the twig he brought all on board. The bird became sufficiently tame to suffer herself to be fed on honey and water during the passage, and hatched two young ones. The mother, however, did not long survive, but the young were brought to England, and continued for some time in the possession of Lady Hammond. The little creatures readily took honey from Lady Hammond's lips; and though one did not live long, the other survived for at least two months from the time of their arrival.

There is no doubt that humming birds may be easily domesticated, and that they will live a long time in confinement in their native countries. Bullock, who paid considerable attention to humming-birds, states in his work on Mexico that he had at one time seventy in cages, and that no bird is more easily reconciled to captivity; and Wilson and other American naturalists assert that these birds have been kept in cages for months on honey or sugar and water and the insects which were attracted and drowned in the sweets.

These successes, though partial, are not entirely discouraging; and we concur with Mr. Gould in believing that ere long we shall have the pleasure of seeing living humming-birds in our Zoölogical Gardens, for steam-power on land and water is now so rapidly narrowing space that the lines do not seem so very fabulous which order

"cook to dress those humming-birds
We've shot in Mexico.
They've now been killed at least ten days;
They'll be *un peu trop haut*."

But if we wish to see the humming-

bird arrayed in all his gorgeous glory, we must visit Central America; and there it is not on the vast plains—though they are the home of multitudes of humming-birds—but on the Andes that the finest and most splendid species are found. The lofty volcanoes are peopled by them; and at an elevation of sixteen thousand feet, amidst seething fires, M. Bourcier discovered the exquisite Thorn-bill humming-bird; and that marvelously beautiful species, the *Loddigesia mirabilis*, of which one example exists in Europe, was killed by the late Mr. Matthews, near Chacapayas, in Peru, at a great elevation. This unique specimen exists in the collection of the late Mr. Loddiges, after whom the species is named; and it is at once so beautiful and wonderful, that we are not surprised to find Mr. Gould declaring that he is quite at a loss to describe this feathered gem, nor to hear that he has offered fifty pounds for a second specimen. His clever artist, Mr. Richter, has succeeded in portraying this bird admirably; and those who have had the pleasure of looking over Mr. Gould's superb volumes will, we are sure, agree with us, that this humming-bird, with its gorgeous apparel and wonderful tail-feathers terminating in purple disks, is fully entitled to the name it bears.

All beautiful objects are more or less rare, but Mr. Gould suggests with reference to this humming-bird that it may be nocturnal in its habits, and therefore seldom seen.

No division of the large ornithological family is more varied in form or coloring than that forming the humming-birds. In some species the bill is very long—in one being no less than six inches in length, containing a double-tubed tongue capable of being protruded nearly as far beyond its tip, thus fitting it to explore the inmost recesses of the long, pendant corollas of flowers. In others, the bill resembles a slender thorn, with which it pierces the bases of flowers, and with the delicate feelers at the extremity of the tongue secures the insects which abound there; others, again, have arched bills, fitting the birds to seize insects on the leaves of trees. Another species is not only provided with a strong hook at the end of the mandibles, but also with numerous thickly-set teeth, which enable them to grasp spiders; while others have bills fashioned like that of the fly-catcher,

to enable^a them to seize insects on the wing. All species are provided with a double tubular tongue of exquisite construction, through which they pump up the saccharine parts of flowers.

The wings of these tiny birds are a marvelous piece of mechanism, combining excessive strength with great facility of motion. These are very essential qualities, as a large portion of the humming-bird's existence is spent on the wing, the bird now hanging poised before a flower, and now winging its way through sunshine and storm to far-distant lands. When poised in air, the action of the wings is so rapid that the eye fails to follow the motion — a hazy circle of indistinctness on each side of the bird being all that is perceptible. But the rapid fanning of the wings is evident by the violent agitation of the flowers and leaves in their vicinity. Mr. Darwin, who had unusual opportunities of studying the habits of almost every kind of bird, states that he never saw any other bird where the force of the wings appears (as in a butterfly) so powerful in proportion to the weight of the body. When hovering near a flower, its tail constantly expands and closes like a fan, the body being meanwhile kept in a nearly vertical position.

This great wing-power is due to the shafts of the quills being remarkably strong and elastic, fitting them to pass the greater part of their lives in the air. When at rest, which is rare, they appear to prefer settling on decayed or leafless twigs, as if they were desirous that their gorgeous coloring should shine with greater repleteness contrasted with the dead and leafless spray.

The tails of humming-birds are most important organs, enabling them to steer themselves with the greatest ease through the air. Though variously shaped, some having forked or cuneate tails, while in others this organ is square or rounded, it is always composed of ten feathers, and no more. In almost all species the spatularies are always in motion when the bird is on the wing, thus adding greatly to the resplendent coloring.

The feet of these fairy creatures, diminutive as they are, are yet highly diversified. In some species they terminate in small, rounded nails; in others the toes are greatly developed, and armed with long, curved, and extremely sharp,

spine-like claws, enabling them to cling to the petals of flowers. The power possessed by these little, fragile-looking birds, of clinging to twigs, is very remarkable. Mr. Gould states that they adhere with such pertinacity, that he has often been apprehensive that he would dislocate the legs of his living humming-birds when attempting to remove them from their perch.

But by far the most remarkable peculiarity of the feet, or rather legs, of humming-birds, is that possessed by the genus *Eriocnemis*. The legs of this lovely group are furnished with the most exquisite feather muffs, generally of spotless white, but in some species brown and white, and in one jet black. All humming-birds possessing this peculiarity inhabit the lofty and cold ranges of the Andes, a circumstance that led to the supposition that their legs were furnished with these muffs to keep them warm amidst snow. But this pleasant idea is dispelled by the fact that the male only is privileged to wear these white boots, the female being in all cases bootless.

The nests of humming-birds are fabrics of exquisite construction. Mr. Gould dwells with pardonable enthusiasm on the wonderful beauty of these tiny cradles. Many are not larger than half a walnut-shell, and these are among the neatest and most beautiful. It is also worthy of remark that many humming-birds are not satisfied by making the interior of their nests alone symmetrical and comfortable, but they also bestow vast pains on the exterior, which is lavishly decorated with gaudy lichens and many-hued feathers. These adornments are disposed in such a manner that the larger pieces are in the middle portion of the nest, and the smaller on that part attached to the branch or leaf:

"It is a question among ornithologists (says Mr. Gould) whether these adornments are fixed on by a glutinous secretion from the bird, or by the invisible webs of some of the smaller kinds of spiders; my own belief is that the latter is the means employed. Now and then a pretty feather is intertwined or fastened to the outer side, the stem being always so placed that the feather stands out beyond the surface."

Some of the humming-birds are said to suspend their nests by the middle from the hanging-root of a tree; and should the nest, which is of a curved form,

prove to be heavier on one side than the other, the lightest side is weighted with a small stone or piece of earth until an equilibrium is established and the eggs prevented from rolling out. Specimens of these loaded nests may be seen in the Loddigesian collection, now the property of the Miss Loddiges.

The eggs of all species of humming-birds are large, considering the tiny size of the birds producing them. In shape they are oblong, nearly alike in form at both ends; of a pinkish hue before their contents are removed, after which they become an opaque white, and so closely resemble bon-bons that they might easily be mistaken for them. The birds are said to produce two broods a year, and the process of incubation, which occupies from twelve to eighteen days, is thus described by Captain Lyon: The nest, which was made in a little orange-bush by the side of a frequented walk in his garden at Gongo Soco, in Brazil, "was composed of the silky down of a plant, and covered with small, flat species of yellow lichen. The first egg was laid on the twenty-sixth January, the second on the twenty-eighth; and two little creatures, like bees, made their appearance on the morning of the fourteenth February. As the young increased in size, the mother built her nest higher and higher. The young remained blind until the twenty-eighth February, and flew on the morning of the seventh March, without previous practice, as strong and swiftly as the mother, taking their first dart from the nest to a tree, about twenty yards distant." The mother seems to perform all the duties of incubation, the male birds never being seen to go near the nests while the young are being reared. When hatching, the female appears perfectly fearless, allowing strangers not only to approach her nest, but even to seize the twig or spray to which the nest is attached. After the young birds have emerged from the eggs, they are left unprotected from sun or rain, the mother feeding them while standing on the edge of the nest, with her body very upright.

Recent researches show that the poet's account of the humming-bird's pabulum is more poetical than correct:

"When morning dawns, and the blest sun again
Lifts his red glories from the Eastern main,
Then through our woodbines, wet with glittering
dews,

The flower-fed Humming-bird his round pursues;

Sips with inserted tube, the honeyed blooms,
And chirps his gratitude as round he roams;
While richest roses, though in crimson dress,
Shrink from the splendor of his gorgeous breast.
What heavenly tints in mingled radiance fly!
Each rapid movement gives a different dye:
Like scales of burnished gold they dazzling show,
Now sink to shade, now like a furnace glow!"

The humming-bird is in truth a great devourer of insects. In the stomach of one, a *bon vivant* after his kind, no less than a hundred and fifteen insects were found. Indeed, the bills and viscid tongues of some species are especially contrived to pierce and withdraw insects from deep tubular flowers. But of the various ways employed by these birds to procure insects, the most curious is that of seizing the half-dead, entangled flies from the webs of the large Mexican bird-spider. It is thus detailed by Mr. Bullock in his interesting work on Mexico:

"The house I resided in at Xalappa was only one story high, inclosing, like most of the Spanish houses, a small garden in the center, the roof projecting six or seven feet from the walls, covering a walk all round, and leaving a small space only between the tiles and the trees, which grew in the center. From the edges of these tiles to the branches of the trees in the garden, the spiders had spread their innumerable webs, so closely and compact that they resembled a net. I have frequently watched with much amusement, the cautious peregrination of the humming-bird, who, advancing beneath the web, entered the various labyrinths and cells in search of entangled flies; but as the larger spiders did not tamely surrender their booty, the invader was often compelled to retreat. The active little bird generally passed once or twice round the court, as if to reconnoiter his ground, and commenced his attack by going carefully under the nets of the wily insects, and seizing by surprise, the smallest entangled flies, or those that were most feeble. In ascending the angular traps of the spider great care and skill were required; sometimes he had scarcely room for his little wings to perform their office, and the least deviation would have entangled him in the complex machinery of the web and involved him in ruin. It was only the works of the smaller spider that he durst attack, as the largest rose to the defense of their citadels, when the besieger would shoot off like a sunbeam, and could only be traced by the luminous glow of his refulgent colors. The bird generally spent about ten minutes in this predatory excursion, and then alighted on the branch of an *avocado* to rest and refresh himself, placing his crimson star-like breast to the sun, which then presented all the

glowing fire of the ruby, and surpassed in lustre the diadem of monarchs."*

But spiders are said to retort; and M. Lesson gave circulation to a story that the monstrous hairy spider of America is in the habit of weaving its net round the nests of humming-birds, and feasting on the succulent and tender young.

All writers on humming-birds who have had the advantage of seeing them alive, concur in stating that they are remarkable for their pugnacity, being fierce little feathered warriors, who can rarely sip sweets in company without a savage onslaught. Mr. Salvin says of a species common in Mexico:

"It is a most pugnacious bird. Many a time have I thought to secure a fine male, which I had perhaps been following from tree to tree, and had at last seen quietly perched on a leafless twig, when my deadly attention has been anticipated by one less so in fact, but, to all appearance, equally so in will. Another humming-bird rushes in, knocks the one I court, off his perch, and the two go fighting and screaming away at a pace hardly to be followed by the eye. Another time this flying fight is sustained in mid-air, the belligerents mounting higher and higher, till the one worsted in battle darts away, seeking shelter, followed by the victor, who never relinquishes the pursuit, till the vanquished, by doubling and hiding, succeeds in making his escape. These fierce raids are not waged alone between members of the same species. At particular seasons, when the southerly wind brings clouds and driving mist between the volcanoes, and all is as a November fog in England, except that the yellow element is wanting, such animation awakes in humming-bird life as would hardly be credited by one who had passed the same spot an hour or two before; and the flying to and fro, the humming of wings, the momentary and prolonged contests, and the incessant battle-cries, seem almost enough for a time to turn the head of a lover of these things."

As a general rule, the most gorgeously-arrayed humming-birds are the fondest of fighting, appearing, like the famous terrier, never to have enough of it. Thus, the exquisite, frill-necked coquettes, and the Royal Blue Myrtle-suckers, both lovely, are greatly addicted to fighting. Of the latter species, M. Montes de Aca says:

"The pugnacity of this species is very remarkable. It is very seldom that two males meet without an aerial battle. The contest commences with a sharp choleric shriek; after which, with dilated throats, the feathers of the

whole of their bodies erected on end, and their tails outspread, they begin to fight with their bills and wings, and the least powerful soon falls to the ground or flies away. I have never known one of these battles last longer than about ten seconds; and in the specimens I have had under my notice in cages, their fighting has mostly ended in the splitting of the tongue of one of the two, which then surely dies from being unable to feed."

The pugnacity of these little creatures is at its height during the breeding season. At that period, the males will not tolerate the presence of any bird; and so savage are they, that one species—the Mexican Star—is said to fly at the eyes of large birds, which it pierces with its needle-like bill. But they have the reputation of being even bolder, Old Oviedo declaring that "When they see a man climb the tree where they have their nests, they flee at his face, and stryke him in the eyes, coming, going, and returning with such swiftness, that no man would rightly believe it who had not seen it"—a prophetic doubt which we may safely indorse. However, be this as it may, it is quite certain that when the Mexicans asserted that the diminutive bodies of humming-birds contained the souls of slain warriors, the myth had a good foundation of truth.

This readiness of combat, says Mr. Gould, is taken advantage of to find the nest and eggs; all that is necessary being to tie a string to your hat, and wave it around your head, when, if a female be sitting in the neighborhood, the male will instantly come down upon you; and by watching his return, the nest may be detected. But there is no necessity to resort to any stratagems to procure humming-birds, many thousands of which are killed annually. Mr. Gould states that Frenchmen and Belgians are in the habit of going to South-America to procure supplies of those birds; and dealers from these countries have established themselves in some of the cities of that part of the world for the purpose. From Santa Fé de Bogota alone many thousands of skins are sent every year to London and Paris, and sold as ornaments for the drawing-room, and for scientific purposes. The Indians have learnt the art of skinning and preserving these delicate little creatures; and as a certain emolument attends the collecting of them, they often traverse great distances to procure them; districts

* *Six Months in Mexico*, p. 271.

of more than a hundred miles on either side of Bogota are minutely searched, and from these places alone no less than seventy species of humming-birds are received. The residents of many parts of Brazil also employ their slaves in collecting, skinning, and preserving humming-birds for Europe; and many thousands are annually sent from Rio de Janeiro, Bahia, and Pernambuco. The inmates of the convents in Brazil require a great number of the richly-colored species for the manufacture of artificial feather flowers. Thus, it will be seen that there is a countless multitude of these little gems, which, although flashing, for the most part, amidst forests and flowers far removed from the habitations of men, can not be said to live a useless life, for they keep in check the peculiar kind of insects on which they feed, and thus fulfill one of the objects for which they were designed.

Mr. Gould emphatically contradicts the oft-repeated statement, that humming-birds are shot with water or sand. These devices are never resorted to, the birds, when destroyed by means of a gun, being killed with numbers ten and eleven shot, those being the sizes best suited for the purpose. If smaller shot be used, the plumage is very frequently so cut and damaged that the specimen is rendered of little or no value. By far the greater number fall to the clay ball of the blow-pipe, which the Indians use with perfect certainty of aim. In Brazil very fine nets are employed, and occasionally bird-lime, which, however, sadly mars the beauty of the plumage, as Mr. Gould has found to his cost.

The general rule that the voice of melody is not given to the most gorgeously appareled birds, has no exception in the case of humming-birds. They are not altogether denied the power of song, but this, at the best, is only a kind of querulous warble, possessing little variety, while the majority only utter a monotonous chirp. Lesson, who studied the habits of humming-birds very closely, says that when flying from one place to another, their cry, which he likens to the syllables *tère tère*, articulated with more or less force, is excited. Most frequently, he adds, they are completely dumb, and he has passed whole hours observing them in the forests of Brazil, without having heard the slightest sound proceed

from them. There is, however, one species inhabiting Jamaica, known as the Vervain humming-bird, which, according to Mr. Gosse, is the only one that has a real song. This gentleman states that it is the habit of this bird in the spring to sit on the topmost branch of a mango soon after sunrise, and to warble in a sweet but very weak manner a continuous melody for ten minutes at a time.

But as winged gems of unsurpassed glory do humming-birds claim our admiration. On them the great Creator has bestowed the gift of rare and wondrous beauty, clothing them in colors that can only be rivaled by emeralds and rubies, topazes and sapphires. For gorgeons and lovely as are the admirably preserved specimens in Mr. Gould's collection, they fall far short of the brilliancy of the plumage of living birds. The reason is obvious, for the sides of the laminae, or fibers, of each feather being of different color from the surface, change when seen in a front or oblique direction; and as each lamina, or fiber, turns upon the axis of the quill, the least motion, when living, causes the feathers to change suddenly to the most opposite hues. The luminous character of the plumage of humming-birds has long engaged the attention of naturalists, and still remains without any very satisfactory solution. Lesson supposes that the brilliant hues are derived from some elements contained in the blood and elaborated in the circulation. Audubert considered the changeableness to be due to the organization of the feathers, which, performing the part of reflectors, cause ruby hues to pass from reddish orange to a crimson reddish black, and again from black to emerald, ruby, crimson, or flame color. Desirous of having this subject investigated in all its bearings, Mr. Gould placed the feathers of a humming-bird remarkable for their brilliant color when viewed in one direction only, in the hands of Dr. Davy. This gentleman writes:

"I have examined the feathers of the humming-bird you sent me under a microscope; the result is, that those feathers in which this peculiarity is most strongly marked are membranous, terminating in pointed filaments, set on obliquely, so that, looking from the head, each feather is only partially seen."

Another gentleman to whom Mr. Gould submitted some feathers, states:

"There are two optical principles only which I can see to be any way concerned in such an effect: one is the cause of the play of colors in mother-of-pearl, which Brewster proved to arise from very fine striated rulings, the distance between parallel lines not being greater than from the ten thousandth to the one hundred thousandth of an inch. The other optical principle, which I think, however, to be the most likely to produce the effect in the case of feathers, is the influence of thin plates."

These explanations are not, it must be granted, very satisfactory, and probably the solution, as Mr. Gould observes, still remains to be given.

We have now glanced rapidly at the leading characteristics of these most charming birds; the tiniest of their race; *maxime miranda in minimis* may be truly applied to them. No wonder that our great ornithologist should have made

them his special study, nor that he should have endeavored to make their wondrous beauty better known. How well he has succeeded will be apparent by an examination of the five stately folio volumes in which he has figured the numerous varieties. Each plate is remarkable for truthful drawing, beauty of design, and the brilliant and exquisite coloring of the birds and plants and flowers resorted to by them. The latter alone are, as we have observed, not only charming artistic compositions, but also valuable for their scientific accuracy, being, for the most part, copied from the *Botanical Magazine*, published by Mr. Reeve. Altogether, we consider this publication to be Mr. Gould's *magnum opus*; and we strongly recommend all who can afford the cost to possess themselves of the work.

C. R. W.

From Chambers's Journal.

MONTHLY SCIENCE AND ART.

SELENOGRAPHY bids fair to take its place among arts as well as sciences. Professor J. Phillips of Oxford has submitted a scheme to the Royal Society for taking a series of portraits of the moon by what he calls "eye-drawing." He would have different observers devote themselves to different portions, working diligently thereat until correct delineations of every part of the lunar surface in all the phases had been taken. Those who know Professor Phillips are aware that he has already made a remarkable drawing of the mountain known to astronomers as *Gassendi*, and that he possesses singular qualifications for the suggested course of observations. He purposes to apply himself to the work for two years, aided by an excellent telescope, in the hope that other observers will be ready to carry it on. There will be one ready, namely, Mr. Warren De la Rue, whose photographs of the moon may be ranked among the

highest triumphs of the photographic art. When he first began, from fifteen to thirty seconds were required to take an image of the moon; now, such is the extreme sensibility of his chemical appliances, that he can get a satisfactory image in one second. Even thus, pictures of the moon are far from perfect, but judging from the future by the past, photography will supersede Professor Phillips's eye-drawing before the two years are over. As the President of the Astronomical Society said at their last anniversary meeting on placing the Society's gold medal in Mr. De la Rue's hands, "he had brought to light details of dykes, and terraces, and furrows, and undulations on the lunar surface, of which no certain knowledge had previously existed."

From an interesting paper on the late great solar eclipse, read before the Royal Society by Mr. De la Rue, we learn that he has been as successful with solar as

with lunar photography. One of his heliographs (sun-pictures) is thirty-six inches diameter. By taking images a few hours apart, it is possible to examine them with the stereoscope, and get thereby a more intimate knowledge of the sun than we have hitherto had, especially as regards inequalities of aspect. It appears to be certain that the faculæ occupy the highest regions of the sun's photosphere, for they have been seen sailing far above the spots and penumbra. Mr. De la Rue has added to his admirable collection of astronomical portraits—we mentioned that of Mars a short time since—an engraving of the last great comet, which equals the preceding portraits in beauty and effect. It is indeed excellent.

The enthusiasm with which Bunsen and Kirchhoff's experiments in spectrum-analysis were received has not subsided; and not a month passes without some further enlargement of the theory and practice of this interesting method of chemical and optical investigation. The consequence is, that first conclusions have to be modified or altogether abandoned, and that those experimentalists who thought we were immediately to discover and determine the physical constitution of the sun and its atmosphere, are now made aware that severe labor and logical induction are as essential in using the spectrum-analysis, as in any other process of human invention for the discovery of natural knowledge. M. Fizeau, whose reputation as a physicist ranks among the highest, finds that in burning sodium to produce an intense homogeneous light, the line in the spectrum which appears luminous when soda is burned, becomes perfectly black on a bright ground. In fact, the whole of the spectrum rays from the red to the violet are luminous excepting the black line in question. This observation opens a wider field of inquiry, and enjoins caution. Meanwhile, those who wish to gain accurate knowledge of what has been already done in this branch of science, will find it in a book just published by Messrs. Macmillan, containing Professor Roscoe's translation of Kirchhoff's *Researches on the Solar Spectrum, and the Spectra of the Chemical Elements*. In addition to the two subjects mentioned in the title, the book treats of the reversal of the spectra of colored flames; the chemical constitution of the solar atmos-

phere, and the physical constitution of the sun. Professor Kirchhoff is of opinion that, in experimenting on the polarization of light emitted from the sun, sufficient account has not been taken of the assumed fact, that the mass of the sun is mainly liquid, forming seas in continual motion. "That such motions should occur in the solar oceans," he says, "seems any thing but improbable when we consider the enormous changes of temperature occurring in the solar atmosphere, and the force of the currents which, in consequence, must be produced."

Naturalists and physiologists have been much interested in the hatching of eggs by the python at the Zoölogical Gardens, because it appears that here, in the last half of the nineteenth century, a physiological fact occurs which they are quite unable to explain. This fact is the surprising increase of temperature in the great snake, a cold-blooded animal, during the process of incubation, simultaneously with entire abstinence from food, and an unaccelerated circulation. It is a question which they will probably have the means of investigating; for as we hear, the five-score young Pythons will be allowed to grow up in the same cage with their parents, and of these some will perhaps be spared for experimental research. It will be a novelty to many spectators to see how snakelings behave themselves.—Mr. Durham has been trying to discover what takes place in the brain during sleep, as he explained in a lecture delivered at the Royal Institution. He bored holes in dogs' skulls, and inserted a piece of glass so as to be able to make observations, and noticed that the brain becomes pale during sleep, owing to the diminished quantity of blood circulating through it, and that on waking or under the influence of an emotion, it becomes flushed or red in proportion to the amount of excitement. Hence, for repose of the brain and healthful sleep, the blood must cease to circulate actively through it; and to insure this result, there must be an absence of anxiety, and of keen, long-continued excitement. We see, in the case of fever-patients, how the continued quick circulation through the brain occasions long periods of sleeplessness. Those readers who wish for more information on this subject that can be conveyed in a lecture, should consult *The Philosophy of Sleep*,

published many years ago by Robert Mac-nish, in which all the phenomena of the subject are discussed.

In a paper read before the Ethnological Society, by Mr. G. W. Earl, he describes mounds of cockles found in the Malayan peninsula, the formation of which he ascribes to an ancient diminutive negro race, whose representatives still exist in the scattered families of the Semangs. The size of these mounds may be judged of from the fact, that one of them contains twenty thousand tons of shells, concreted together by carbonate of lime acting through long ages. The Chinese, who burn these shells to make lime, have dug away two thousand tons from the heap above mentioned, and made an excavation twenty-five feet deep. In such enormous quantities, Mr. Earl sees evidence of a numerous population.—A rumor has been heard of the discovery of another "ruined city" in Guatemala, which, for extent and magnificence surpasses all as yet known in Central America. Here, again, the question of an extinct civilization arises. In another paper that came before the Ethnological Society, it was shown on philological grounds that those mysterious American antiquities were the work of the Aztec race. Mr. Oliver in his recent lecture at the Royal Institution, argued that America was peopled by tribes passing from west to east across the neck of land that once traversed Behring's Strait, that plants and animals migrated by the same path, and concluded by stating that, "taking all the evidence into consideration, the probability is far greater in favor of an Asiatic migration than by an Atlantic continent, and every point in our knowledge confirms this view."

We all know the large sum which we have to pay annually for the maintenance of our army; it is a prodigious burden. It is some compensation, however, to know that some of the recent increase is not in vain; for, looking at the question from the sanitary point of view, we find, on comparison of the six years ending with 1860, a marked improvement over the former six. The deaths among the household troops are reduced from fourteen in the one thousand to five; in the cavalry of the line, from fifteen to six; in the royal artillery, from fifteen to seven; in the foot-guards, from twenty-one to nine; in the infantry, from seventeen to

eight. At Gibraltar the rate has fallen from twenty-two to nine; in Canada, from twenty to ten; in Ceylon, from seventy-four to twenty-seven; and in Jamaica, from one hundred and twenty-eight to seventeen. Clearly, the army is better cared for than it used to be.

Among inventions recently submitted to the Franklin Institute at Philadelphia, we notice a patent universal square which combines the try-square, the miter, the T-square, the center-square for finding the center of a circle, and the graduated rule. Another is a detector-clock, which by the absence of certain marks, infallibly betrays a watchman who forsakes his post. Another is a machine which makes envelopes at the rate of thirty thousand a day. Some American inventors, captivated by the remarkable properties of hydrated silica, are calling on the government at Washington to use this indestructible substance in the construction of forts, and public works.—We noticed, a year since, M. Deville's ingenious method for melting and casting platinum in large masses: it appears that a somewhat similar method has been practiced for several years in New-York in preparing the metal on a large scale for commercial purposes.—In Ohio, one Mr. Watson has invented a machine for draining land, which seems entirely to dispense with hand-labor. He fixes a cutter to the plowshare, which cuts down to the required depth in the subsoil, and forms a proper channel for the flow of water. Beside this, the plow carries a hopper filled with hydraulic cement: this cement flows downward while the implement is in motion, into a spiral conical trowel, which, moving slowly round, leaves behind a complete tube, which requires but a few hours' drying to become a permanent drain. With such a machine as this, the reclamation of new lands ought to proceed rapidly.—In California, ingenuity finds scope; for Mr. Cole has there shown that a locomotive may be made to supply the steam for the turning of its own turn-table. A pipe from the steam-chamber to the cylinders, which impart motion to the working-gear of the turn-table, suffices for the operation.

Brother Jonathan has given the world a lesson at his own cost in demonstration of what can be done with iron-plated ships in action. While we have been expending hundreds of thousands sterling

in building Warriors, and in elaborate scientific experiments at Shoeburyness, he with his rough and ready practice has fenced one of his frigates with a gable of "rail-iron," which sank a heavy wooden frigate by jamming in her sides; and built a battery with sides of "white oak" three feet thick, covered outside with six-inch-iron, and inside with thin iron plate. If trustworthy reports of the results of the action can be obtained, naval engineers and architects will have important data for their guidance. Meanwhile, there is matter for consideration in a recent experiment at Shoeburyness, which was undertaken to ascertain whether a thick-sided iron ship could be depended on without an inner support of wood. The decay of wood is so rapid when in contact with iron that it is said the Warrior will have to be taken to pieces and rebuilt every seven years, a prospect by no means encouraging for payers of income-tax. Hence the desire to try whether iron alone will suffice. Judging from the experiment above mentioned, it will not, for the massive plates were all loosened from the bolts after five or six shots. A few shots more, and the target would have tumbled to pieces. A suggestion has since been made that the wood of such a ship as the Warrior might be protected by placing between it and the iron plates a fibrous layer, three inches thick, of coir, or of the *Urtica nivea*, a plant which India produces in inexhaustible quantities.

It will perhaps be a surprise to some readers to learn that the Danube Commission, which has now and then been mentioned in newspapers, is a working fact. They have been improving the navigation of the great river, so as to facilitate access to the vast corn-growing countries that border it. In time of flood, the Danube pours six hundred thousand cubic yards of solid matter—diluvial detritus, as the engineers call it—into the Black Sea every twenty-four hours; and at other times fifteen thousand cubic yards. As a consequence, shoals are numerous, and at the Sulina mouth, (the one most frequented,) the depth of water was rarely more than nine feet on the bar. Vessels could only cross it by being lightened at great expense and much vexatious delay. Such was the state of things when, in pursuance of the Treaty of Paris, works were

begun in 1858, under direction of Mr. C. A. Hartley, chief engineer, to improve the Sulina mouth. As he informs us in a paper read before the Institution of Civil Engineers, in the course of thirty-seven months two piers were built, one on each side of the channel, comprising a total length of seventy-six hundred and thirty-one feet, in which twelve thousand five hundred piles were used, and two hundred thousand tons of stone, the latter brought from a distance of sixty miles. The results are satisfactory, for the bar has been washed away, and the channel is now seventeen and a half feet deep, and five hundred feet wide; and it has been accomplished at a cost "not exceeding the sum that has been paid in one year only for lightening vessels over the bar."

A rumor has been heard that the Federal government at Washington are so desirous for quick communication with England, that they are willing to undertake a large share in an attempt to lay down another Atlantic cable. That such a communication will be established some day, no one doubts who is competent to form an opinion; but whether the art of preparing and sinking a telegraph cable is yet sufficiently advanced to insure the integrity of so great a length of wire, is a question—a question soon to be solved, if we judge of the past progress of electro-telegraphy; as a proof that they have an eye upon the West as well as upon the East, Congress have voted one hundred thousand dollars for surveying a telegraph route from San Francisco to the Amoor river, which is to be carried along the land as far as Behring's Strait, and there cross from island to island to the Asiatic continent. As the Russian government is to construct a line from Moscow to the mouth of the Amoor, New-York and Petersburg will be able to communicate when all the proposed works shall be complete.

It was in 1837 that Cook and Wheatstone took out their patents; the first electric telegraph was established in 1839; and now we have in the United Kingdom fourteen thousand five hundred miles of telegraph. There are about one hundred thousand miles on the continent of Europe, and nearly fifty thousand miles in the States of North-America. The restoration of a portion of the Red Sea line may be regarded as a fact of hopeful significance: already our Indian tele-

grams come earlier. The next news will probably be that the line is repaired as far as Aden; and after that, by means of the coast-line to Kurrachee, the swift messages will be flashed without interruption from Calcutta to London, and readers of the morning papers will read every yesterday's news from the far East. It appears, moreover, by late accounts from Egypt, that, to avoid the risk of failure,

an attempt is to be made to extend a line from Lower into Upper Egypt, whence it would be carried across the desert to the mouth of the Red Sea. The pacha approves the scheme, and is to keep the Arabs from injuring the wire; and thus we may hope that our sole reliance will not always be upon a single cable resting on the rocky and rugged bottom of a dangerous sea.

From the Dublin University Magazine.

OUR ARMY AND NAVY ESTIMATES.

OUR American cousins pride themselves on going ahead; but they have something yet to learn from the folk on this side the Atlantic. It will be time for them to boast their superiority whenever their Government can raise, as readily as ours is now doing, some twenty-eight millions a year in taxes for the national defense alone. It sounds an awful sum to pay for insurance against perils that may never assail us; but John Bull, being rich and prudent, yields himself to his fate with a growl or two of resolute good will, and snatches a sip of doubtful comfort in wondering which of his neighbors would bear so heavy a burden without breaking down. For, look at it in what way we will, it is a burden which only a strong sense of urgent need and a wise regard for the national well-being, would enable the richest, holdest, and proudest people in the world to keep on bearing with hardly a murmur from year to year.

That the national outlay for defensive purposes in times of outward peace should amount to some two fifths of the whole yearly revenue, and to very nearly two thirds of the money yearly required for keeping the state-machinery in working trim, is a matter for Englishmen to think quietly over at odd hours, taking care, of course, not to shirk the difficulties before them by jumping to the lame conclusion long since accepted by the Manchester

school. Let them also remember that this huge outlay has steadily risen from time to time, like the price of land in the neighborhood of a flourishing town, until the mere flea-bite of seventy years ago has swollen into a lump of portentous size and inveterate hardness. It was not mere talking from the purpose when Sir G. Cornwall Lewis traced the growth of our army estimates since the first year of the great French Revolution. In 1789 the cost of our soldiery for the two islands fell short of three millions, for an army of forty-three thousand men. After the close of the French war, Great Britain paid on the average nearly ten millions a year for a peace establishment of about ninety thousand troops. About 1832, indeed, the outlay had fallen to eight millions and a quarter, for an army of ninety-seven thousand one hundred and forty-nine men. But in 1852, with a Saviour of Order on the French throne, we were keeping up a force of one hundred and nineteen thousand men on an outlay of nine millions and twenty-one thousand pounds. Then came the Russian war, with its unpleasant revelations of past shortcoming, and after the war there came on us a fear of our late allies, and the need of making improvements in our warlike weapons; so that we find ourselves paying over fifteen millions and a quarter for a peace establishment of a hundred and forty-five thou-

sand men. And this does not include a round million for the militia. Thus, in a population twofold what it was seventy years since, our military outlay has risen five-fold, and the numbers of our army between three and four-fold; while for every soldier, who, in 1789, cost us an average of eighty pounds a year, we have now the pleasure of paying a trifle less than a hundred and fifteen pounds. Of this difference, some part must of course be ascribed to the difference between then and now in the value of money, and the remainder fairly represents the improvement which late years have brought about in the arming, training, clothing, and general management of our troops. What with the increased strength of our land forces, and the increased efforts recently made to bring them up to the highest pitch of efficiency, by means of standing camps, improved fire-arms, government factories, a well-organized staff, and so forth, we may readily believe that on the whole our soldiering is done for us at a rate as cheap as reasonable men could well desire. If Great Britain must keep up an army of one hundred and forty-five thousand regulars, besides militia and volunteers, and the eighty thousand troops in India, maintained at India's cost, there is no reason to doubt that within a few pounds here and there, the public money is laid out to the best advantage.

Half of the five millions added to our army estimates since the Russian war may be ascribed either to the shortcomings of former days, or to new discoveries and improvements in warlike engineering. Lord Herbert died too soon for his country, but not before he had established or set in motion a series of reforms, for which every true soldier will bless his memory. To him beyond all others our army owes whatever has lately been done for its better health, comfort, efficiency, and moral teaching—whatever, in short, was overlooked, or scouted, or kept out of sight in the days when sanitary science was hardly out of its shell, and a cry for retrenchment raised by a few well-meaning Radicals in the House of Commons, frightened the boldest friends of army reform. There is a world of eloquence in the simple fact that the death-rate for soldiers in the United Kingdom has within the last few years fallen from twenty-one per thousand in the Guards, to nine; from fifteen per thousand in the cavalry,

to six; from fifteen in the artillery, to seven; and from seventeen in the infantry, to eight. In some foreign stations the proportionate improvement has been yet greater. For twenty-seven who once died yearly in the Ionian Islands, there now die nine out of a thousand; in Ceylon the deaths have dwindled from seventy-four to twenty-seven; in Bermuda, from thirty-five to eleven; in Jamaica, from a hundred and twenty-eight to seventeen. If the good already done has cost the nation something in the way of building new barracks or enlarging old ones, of maintaining an efficient medical staff, of thoroughly remodeling the hospital and commissariat services, of forming camps of exercise, schools of musketry, soldiers' reading-rooms, baths, schools, and gardens, let us be thankful that our money has been so well bestowed, and that the British soldier has been rescued not a whit too soon from the wretchedness and the corruption, bodily and mental, to which he had so long been given over.

Nor has it cost us a trifle to make timely use of the improvements which our men of skill have from time to time been developing in our engines of war. To our own thinking, it may still be doubtful whether the new guns and rifles should wholly displace the old smoothbores and Brown Besses; but good judges and high officials have thought otherwise, and so the gun-foundries and small-arms factories, public and private, have been working merrily for some time past to fit out our fleets and armies and fortresses with ever so many thousands of Enfield rifles and Armstrong guns. The expense thus entailed on the country has, according to Sir G. Lewis, been lessened rather than increased by a division of the work between private manufacturers and the government workshops at Woolwich and Enfield. We trust sincerely that he is right, though the tales that every one has heard of business bungled in government dockyards, are not of a kind to encourage rash hopes. Properly overseen, however, government work would, in all likelihood, be the better done of the two, and the check to extravagance supplied by a comparison with the charges for similar work done elsewhere, should tell in favor of its actual cheapness. Then again, what certain proof is there that these new Armstrong guns, which cost so much in the making, do, indeed, for general purposes,

surpass guns of any other pattern hitherto tried or projected? After all the costly experiments of late years, have we got the most useful weapon we could for our money; or is it true that a little less haste, a little more openness to outside offers, would have insured us something less provocative of unfriendly comments from many different quarters? Surely, it is not so hard to invent a fire-arm, whether gun or rifle, which shall answer the purposes of at least one generation. Already a notion seems to be going abroad that our Enfield rifles are unequal to the work required of them. As for the Armstrong guns, the controversy which began before the last Chinese war, shows little sign of dying away, though their inventor not long ago made out so clear a case in his favor, that every one declared him conqueror, until the next shot fired from the other side seemed to blow some of his best defenses into the air. Experiments in gunnery swallow up many thousands of precious pounds, and it is rather disheartening to think that so many tons of good gunpowder are yearly fired away, with so small a residue of proven and practical good to the public. Of course, if the Whitworth guns are a failure, there would still be thousands to believe in their efficiency; but how is it that the voices against Sir W. Armstrong are still so many, and that his rival is still allowed to make bootless experiments at the public cost? Either the government are extravagantly courteous to a baffled projector, or their countenance of the more successful one rests on no strong ground-work of rational trust.

Out of the large amount paid away for warlike stores, workshops, workmen's wages, at least a million should in fact be written off to the account of our naval estimates; the War Office now taking the place of the old Ordnance Board. Another item of two hundred and eleven thousand pounds expresses the yearly cost of that volunteer army which sprang into being hardly three years ago, and already numbers not far from two hundred thousand men. Here, at least, is an outlay which very few Englishmen are like to grudge. For less than a quarter of the sum disbursed on account of our militia, for a fifteenth part of the five millions laid out on the mere pay and allowances of our regular troops, we have the means of keeping together at least a hun-

dred and fifty thousand good men and true, already by fit judges pronounced worthy to form up beside their comrades of the line. If with that sum, or even twice as much, a volunteer army of that size can always be held ready for any need, however sudden or serious, few people, we think, would pause to quibble about mere names, or to ask why volunteers should look to the state for help and guidance in matters of discipline and general control. As long as they show power to help themselves, there is no reason why the state should not help them in all practicable ways. If the movement so promisingly begun should ere long be doomed to die away with the gradual wearing out of the first set of uniforms, or to fall asunder through squabbles among its leaders, England would at once lose the ground she has recently gained back in the regards of foreign rivals, or have largely to increase her regular army, at a cost of many millions, which even she could ill spare. But in such a likelihood we can not for a moment believe. There is heart enough in the movement to carry it over worse reefs than a party quarrel, or a difficulty about new clothing. The drill-ground and the butts have gained too deep a hold on the popular feeling to warrant the fear of their being lightly forsaken by the bulk of their present votaries. A few careless or discontented members may tail off here and there; a few weak companies be broken up; new members may not enroll themselves quite as frequently as heretofore; but, unless the spirit of our fathers has gone out from among their children, we may surely count on maintaining, in time of peace, a volunteer force of little less than a hundred and fifty thousand trained soldiers. Whatever government can fairly do to make that force as efficient as it certainly might be made, no fear of professional clamor should deter it from doing. Only let the volunteer system have a fair trial, and a few years hence we may find it possible to knock some millions at least off our army estimates.

For, be the money well spent or not, fifteen or sixteen millions a year is a sum which all tax-payers would like to cut down, if they could but see the right way how. John Bull is a very Issachar for patience, and, like all who have much to lose, will pay well for the means of

sufficient self-defense; but he would rather not keep more policemen about his premises than the times and his own sense of duty seem to demand. While learning to set a just value upon the soldier's services, he can not blind himself to the good things already foreshadowed in the growth of another body capable of rendering no small or limited service on infinitely lower terms. If we could only insure the permanent aid of a hundred and fifty thousand skilled volunteers, well officered and bound together by certain uniform rules of discipline and conduct, we might safely venture, a few years hence, to strike off from our army rolls some thirty or forty thousand men, represented, in hard coin, by three or four millions sterling. At present, perhaps, we have not a soldier too many, but when the volunteer system shall have ridden out its term of trial, the country will certainly insist on a large reduction of the regular troops. But whenever that happens, let nothing persuade us to cut down the staff of the army by a single necessary man, least of all, by a single department. Infantry soldiers may be had at any time to fill up the ranks of an old regiment; but the doing away of a military train, or a commissariat service, can only entail the saving of a present penny with the certain loss of many future pounds. Our aim should be to maintain at all times the smallest practicable force in point of numbers, but a force so perfectly equipped in all things needful for active service, that, in time of danger, it may bear enlarging to any extent at the shortest notice, with the least possible strain upon its working powers. Even our cavalry should be touched with a cautious hand; while very little, if indeed any, reduction should ever again be made in the strength of our artillery and engineers.

Less doubtful and more momentous is the saving that may, ere long, be decreed in another direction. Of that heavy bill which the country is required to honor, some three millions, it seems, are incurred on account of colonial charges. Rather less than half that sum being absorbed by purely military colonies, which no one, save Mr. Goldwin Smith, would seriously counsel us to surrender, there still remains a balance of more than a million and a half, which the mother country, it is said, has no longer any fair call to pay. A vote

of the House of Commons has just decreed that self-governing colonies should take upon their own shoulders the chief burden of their internal, and even some small share of their outward defense. The rule here laid down, and the distinctions drawn, sound fair enough. Our American and Australian colonies are bidden to undertake their own defense against all dangers from within, while the imperial government will continue to guard them, mainly at its own cost, against outward foes. The settlers at the Cape are not to look northward for help against enemies of their own provoking, nor are the white men of New-Zealand to drive their Maori neighbors into rebellion, with the certainty of seeing British regiments hurry off to put them down. But what share can the West Indian colonies, with their strangely mixed population, just now take in their own defense, and how far should the Cape be regarded as an independent colony, rather than a useful halting-place on the road from England to India? It is quite right that a people who have gained the privileges should also bear the burdens of self-government; but, are all the self-governing colonies equally capable of preserving peace in their own borders? Can the Mauritius ever be viewed in any other light than that of a commercial and military post? Let us not be too hasty in shifting off a burden which, even if we reckon Jamaica as a self-governing settlement, amounts to something less than a million and a quarter yearly. In that sum, too, is contained the whole cost of our Canadian garrisons, half of which, at any rate, must still be defrayed by the mother country, unless we would leave Canada helpless on her weakest side, against the inroads of her very ambitious neighbor. Let us be wary also of driving too hard a bargain with a people who have just been showing such hearty enthusiasm in our behalf. It is bad enough that the leading journal should indulge in ill-timed and wholly groundless taunts about the heaviness of a tariff levied by the Canadians for fiscal purposes alone; a tariff which they were even ready to make differential in favor of British goods. If the matter, however, be but fairly and nicely handled, we can not doubt that all our greater colonies will emulate the good example already set by at least one or two, and that future estimates of our military expenses will

show under this head a difference in our favor of several hundred thousand pounds.

But for the cost of the late Canadian armament, our army estimates for this year would have been less by nearly a million than those of last year, if we strike out the large sum owed us by the Indian government. A saving almost as large is promised us by the navy estimates for the coming year; but nearly half of that may be set down to the charges incurred last winter on account of the Trent affair, which, between the two services, has cost the country more than a million sterling. Lord Clarence Paget's demand on us for this year amounts to rather less than eleven million eight hundred thousand pounds; and, as far as unprejudiced critics can judge from a statement seemingly frank and clear, the money will be laid out to the best advantage, allowance being made for a certain amount of the waste which seems inevitable under the present system of dockyard control. We have still to pay some three millions more than we did a very few years ago, but then it is comforting to feel that France no longer takes the lead in ship-building, and that, in point of numbers and general training, our ships' crews are very different from those whom Sir Charles Napier led into the Baltic. Our Channel fleet, small indeed, but select, will soon boast the presence of two mighty ironsides, one of which, the *Warrior*, has but lately tossed unharmed through a heavier sea than Mr. Lindsay had ever encountered in all his former voyages. A fleet of twenty-eight ships, nine of them liners, will look after British interests in the Mediterranean, while thirty-one vessels, mostly liners and frigates, are to cruise in American waters. Besides these, some eighty vessels, frigates, corvettes, and sloops, are distributed in other foreign stations; including, we suppose, a larger force than usual for the East-Indies, now that the old Company's navy is to exist no more. Besides the *Warrior* and the *Black Prince*, nine more ironsides will, it is confidently hoped, be ready for launching in the course of this year, and four more between this and 1864. Three of these will surpass the *Warrior* in length and tonnage, and will carry their iron plating round stem and stern. The rest will mostly run much smaller—to four instead of six thousand tons; and, lastly, if the country is will-

ing, trial will be made of a new kind of war-shark, a steamer of two thousand five hundred and twenty-nine tons burden, two hundred and forty feet long, drawing only twenty feet water, carrying no masts at all, and showing on her deck six iron domes or cupolas, each armed with two Armstrong hundred-pounders. This strange vessel is meant only for 'longshore service, and her cost will be comparatively small.

It is the frightful cost of our new iron frigates which mainly brings the yearly estimates up to a mark so much higher than they had reached in 1858. Lord Clarence Paget told his hearers that three hundred and sixty-eight thousand pounds will have been spent on the building and arming of the *Warrior* alone. We forget by how many times this total exceeds that of even a wooden screw-liner; but it teaches to regard as, at least for the present, hopeless any return to those happy days when even nine millions a year seemed in our eyes a galling burden. Iron plates five inches thick, and rifled guns of curiously welded make, are improvements for which we must pay in proportion to their seeming virtue. And the pains bestowed on our ships are matched by the efforts making to insure a constant supply of good sailors. What with pay and allowances of various kinds, the sailor on service receives higher wages than the merchant-seaman. Instead of the wooden-looking salt junk, and hard, moldy, brown biscuit of other days, fresh bread is baked for them from day to day, and a government factory, at Deptford, supplies him with first-rate beef, "fit for any gentleman's table." Schoolmasters of a better class than heretofore will henceforth take care of his mental nurture. Naval barracks are building at Devonport, in order that our seamen may learn their duty, and keep out of mischief on shore. Something is also said about a naval prison, wherein the sailor may undergo his sentence without risk of coming out more hardened than he went in. There are training-ships, in which twenty-five hundred boys are learning to become good seamen, while the same good office is done to seven thousand more distributed through the fleet. Besides the fifty-four thousand two hundred sailors and coast-guard men afloat, we are paying for a reserve force of more than forty thousand men, of whom at least

ten thousand belong to the Naval Volunteers—a pleasing proof of the success which has at last rewarded an experiment, in its earliest stages by no means promising. All these facts and projects imply new channels of public outlay. Every naval volunteer costs yearly thirteen pounds for his retaining-fee, while the yearly average for each boy on training comes near on forty-five pounds. Barracks are not built for nothing, and the beef cured at Deptford certainly costs more money than that procurable in the old way. We are building larger ships; and our dock-yards, therefore, need enlarging. If no more three-deckers are on the stocks, there is somehow a sad lack of sloops and gun-boats, which lack must speedily be made good—by other hands, we trust, than those concerned in the rotten counterfeits run together during the Russian war. The Admiralty, like the daughters of the horseleech, keeps crying, “give, give,” and John Bull has bowels as well as gold. His kindness may not always be turned to the best account; but, after all allowance for waste and mismanagement, we doubt, if even under a better system, the present rate of outlay could be lowered by many thousands of pounds.

It is seldom that a Naval Under-Secretary has so many good things to tell in one breath as Lord Clarence Paget had the other day. The fact of our Royal Naval Reserve having in two years or so reached its full limit of ten thousand men, would, in itself, be matter for much rejoicing, and the good sea-going qualities of the *Warrior*, scarcely clouded by the dangerous oversight in her steering-gear, were attested by speakers whose seamanship added no small weight to their hearty praises. Besides sailors actually afloat, we may also count, it seems, at any moment on the services of twenty-three thousand trained men and boys, marines, coast-guard, and able-bodied pensioners. Of the ten thousand naval volunteers, the whole, or much the greatest part, would be ready for service at six months’ notice, officered by the pick of the merchant navy, whose readiness to accept the terms so lately offered by government goes far to prove the wisdom of an arrangement which strengthens the ranks of the royal navy by a due admixture of the smart seamanship and gentlemanly breeding, nowadays not seldom found together

among the officers of the humbler service. These volunteers, officers and men, want nothing but a course of target practice to make them first-rate seamen of the line. The men of this class stand first on the ship-owners’ books. Of the regular sailors afloat, two-thirds have now been enrolled for continuous service—a result that must tell with damaging effect on the crimps, and such like evil beings who have hitherto waxed fat on the follies of Jack ashore. The foolish old custom of paying sailors for their mess-savings has also, we are glad to see, been done away. Flogging in the navy has sunk from three per cent in 1857, to one and one third per cent in 1860, owing partly to a kindlier tone among the officers, partly to an improvement in the men themselves. Something, too, has been done toward bettering the general health of Jack on ship-board. The death-rate on the home stations now averages about ten per thousand yearly, while that for the whole navy amounts to an average of sixteen per thousand—a sensible improvement on former days, but one which still leaves room for better things hereafter. Something or somebody must be yet to blame, that well-fed, well-tended men at sea should die faster than soldiers on shore. Are the men too closely crowded in the fore-part of the ship at night? It needs no experience of life in a man-of-war to fancy what the lower decks are like when the men are all asleep. Whoever has done any traveling by sea, or walked the first thing of a morning into some ill-ventilated, overcrowded soldiers’ barrack—and such things are, or were not long ago—can guess how readily the worst forms of disease take root and flourish in so tainted an atmosphere. Some system of thorough ventilation between decks, and an allotment of the largest possible breathing room for the smallest number of men that will insure the efficient working of the ship at all times, would certainly abate the mischief, if such remedies were as easy to apply as they are safe to recommend. Perhaps the Peninsular and Oriental Company’s steamers might furnish a hint or two in the matter of ventilation. To reduce the complement of a man-of-war is “periculosæ plenum opus alere;” a thing by no means so easy as to landmen generally, and the *Times* writers in particular, it often seems. No one can know better than the Secretary of

the Admiralty for how many purposes a ship's crew is needed other than that of getting the ship along. Accordingly, he begins with partial and tentative reductions of forty, sixty, and eighty men in certain ships of the fleet, agreeably to their several ratings. Such a measure becomes all the more feasible on account of the reduction now making in ships' armaments. The *Revenge*, for instance, instead of ninety-one guns, weighing five hundred and thirty-three tons, will carry seventy-one guns of far greater bore, weighing only four hundred and thirty-eight tons. The fewer guns being so much lighter, will need fewer hands to work them. This large saving of upper-deck weight will entail, indeed, a certain loss of weight in the broadside also; about one sixth of the whole, or three hundred pounds in the seventeen hundred and eighty pounds fired under the reigning system. But the loss in actual weight of metal will be more than redeemed, we learn, by the substitution of a hundred-pounder and six forty-pounders for so many guns of less caliber, it having been lately proved that a heavy shot of—say a hundred pounds, will do more harm than two of fifty each. Many of the guns, too, under the old system could only be fired straight in the one direction, on account of the rigging in their way.

The day of three-deckers seems very fitly to have passed away. Those huge floating fortresses, with their three tiers of death-dealing muzzles, must have proved as lumbering, top-heavy, and unsafe, as they always looked. But why should we go to the other extreme, and build nothing but frigates and gun-boats? Could we not have a certain number of roomy, powerful, fast-sailing two-deckers, equal almost to any frigate in point of speed and seaworthiness, yet so armed, manned, and built, as to rival the old first-rates in their special line of usefulness? Our frigates nowadays are a match for the two-deckers of the French war; a two-decker built on the scale of our larger frigates would have made the *Santissima Trinidad* haul down its colors in a very short time. Sea-fights are still possible, and steam will prove the sure

friend of the stoutest crews and the best armed ships. As the French rushed to close quarters at Solferino, so will British sailors continue, in spite of all new appliances, to lay themselves if possible alongside the foe. Size, speed, weight of metal, and strength of men, are still, we dare avow, of greater consequence than mere impregnability against attack. Whether we build our fleets of wood or iron, or a mixture of both, let us remember that fearless seamanship and high discipline will do more than five-inch plates and guns of fabulous power, to give our sailors the victory, as of old, against enemies stronger than themselves in mechanical means. Our naval supremacy must still depend on the unimpaired fineness of that human metal which Blake, Rodney, Nelson, Dundonald, found each in his turn so sure and ready to their hands.

For the present, then, we must keep on paying heavily for the maintenance of our fleets and armies. The need of making up for lost ground with regard to the men, and of keeping step with the quick march of mechanical science in respect of our warlike munitions, seems to warrant an outlay otherwise far too large for peaceful purposes. In the case of our navy, too, it is France that virtually regulates the amount of our yearly disbursements. We have not yet fully regained our old distance from our nearest rival. There will be something to show for the money, if only in the improved organization of the two services, and in the gradually improving prospects of our soldiers and seamen. If another Lord Herbert may not easily be found, his successor at the War Office seems ready to walk in the same path; and the Admiralty for once can boast a thorough sailor and an active administrator at the helm. Under such auspices we must wait and hope, content to pay yearly forty-five pounds a head for boys under training, and more than half a million for soldiers' barracks; if so, the country may be insured a never-failing supply of good seamen, and many a precious life be yearly saved for its own and its country's good from some form of unmerited suffering or untimely death.

From Chambers's Journal.

MY FIRST AND LAST PARTNER

MRS. MAJOR C—— was known to most of the good society of Bath within the last twenty years as one of the latest representatives of the world of beauty and fashion which existed in George III.'s time. In her youth, she had seen Garrick, sat to Reynolds, and been presented to Horace Walpole. In later years, she had helped to make up rubbers at Mrs. Piozzi's card-parties, heard court-gossip from Cornelia Knight, and sat silent, as all mortals were compelled to do, under the mighty and magniloquent tongue of Madame d'Arblay. Having seen and heard so much, Mrs. Major C—— was a great authority in all that regarded the bygone generation. Like most of the ladies she had outlived, her faculties were kept in good repair to the last; she was cheerful, social, and in a manner active, up to fourscore, ready for all amusements, inclined to youthful dressing, and very determined to have her say. Mrs. Major C—— had been lively all her days, a bit of coquette of the harmless kind; she had been known to carry on a flirtation in her seventieth year, and is traditionally said to have rouged for the last party at which she ever appeared. The old lady had lived in good, or at least in gay, company from her youth; she had seen Bath at the head of its profession as a watering-place, she had seen it decline before the rising glory of Brighton; but at Bath her head quarters continued to be for more than half a century; and one of the traditions of the place was, that Mrs. Major C—— had never been seen at a ball, or known to enter a room where dancing was going on, if she could help it.

This was a singular whim or antipathy for a lady otherwise so lively; yet the fact had been handed down from her contemporaries, and was confirmed by later experience. Mrs. Major C—— had never danced, so far as any body knew, nor ever cared to look at dancing. There were a dozen strange tales to account for

it; the most of which had come out of Gloucestershire, her native county, and varied between accidents to her own toes and the breaking of somebody's heart. The old lady had never thought proper to set her friends right on the subject; their endeavors to ferret out an explanation had been politely foiled at many a quiet tea-table and friendly call. But few people care to die with their secret untold; and after sixty-three years of discreet silence, Mrs. Major C—— chose, in her eightieth winter, to reveal hers one evening to a small group of intimates, young and old, who had gathered round her genial fireside, got into familiar talk, and by some accidental words, which, though one of the company, I did not observe at the time, and can not recall now, unlocked that dark closet of the old lady's memory:

"I was never at a ball but once," she said, leaning back in her easy-chair, 'and I never wanted to go to another, which you may think strange, for I was just seventeen when that one came off; but it happens to be true, and as the folks are all dead and gone that were concerned in it, I will tell you the story. I was brought up in the Forest of Dean, where my father was a country squire, but, unlike the county gentry of that day, both he and my mother were strict Methodists. We lived in a fine old hall, pleasantly situated on the side of a wooded hill, sloping down to the Severn. The seats and mansions of the county gentry lay all around. They were social in the Forest then, whatever they may be now; there were hunts and picnics, Christmas parties, and birthday balls. We had always been reckoned among the county families, and not one of the least consideration, I can tell you, for the hall and lands had been ours before the Reformation. The best of them would have been willing to have us for associates; but my father and mother considered all sports and merry-makings as so many byways

to the kingdom of darkness. No earthly power could persuade the one to join the hunt, or the other to appear at any thing but a serious party. When a company of strolling players happened to visit the neighborhood—there were no other theatricals to be found in the Forest at that time—they never rested till the whole troop and their profane devices were got out of it for some infraction of parish rules or ordinances. Picnics were bad, parties were bad, plays were bad, but by far the worst—in short, the high road to Satan, in their reckoning—was a ball.

“I was their only daughter out of seven children, and much indulged in a pious way; yet for me to mention, much less expect to attend, such a gathering of sin as a dancing-party, would have drawn down upon me their fiercest indignation, and most abundant lecturing. We had no company at the hall but Wesleyan preachers on their rounds; two or three serious farmers of the better sort, whom my parents called brethren; and a couple of reduced gentlewomen. These last were old maids, and also devout Methodists, and my mother set them before my youth as examples of all that was praiseworthy. I have no doubt they were excellent women, and so most certainly was my mother, though she mistook, as many otherwise good and honest people have done, narrow-minded asceticism for piety, and the necessary recreations and enlivenments of life for sin.

“No merry-makings were allowed, or even talked of in our house, but, nevertheless, I had a knowledge that such things existed. The majority of our relations, numerous as they were in Gloucestershire, had grown cool, or been quarreled with on account of Methodism; but we had an aunt with two grown daughters, living in the Cathedral Close, in the ancient city of Gloucester, with whom a correspondence was still maintained. My aunt was a widow, with rather limited means. My two cousins, Grace and Alice, were handsome girls, taller than myself, some years older, anxious about their looks, their society, and their settlements. When my aunt and cousins visited at our house, they were always serious, wore high, dark-colored dresses, plain bonnets, and no curls. They could all talk a good deal

of Methodism too, though I don't know how they learned it; but when the girls and I were alone together, they gave me such accounts of the plays, parties, and balls they attended in Gloucester, that I thought them the happiest people in Europe. Whatever young folks hear of their neighbors having, which they themselves have not, they are apt to crave after—the taste of the forbidden fruit, I suppose; and this was deep in my mind, in spite of the serious bringing up, and the good example I had in the old maids. My mother knew nothing about it; the gay revelations imparted to me by Grace and Alice were given under promise of strict secrecy from mamma, which, besides being bound in honor to keep, was a necessary condition of hearing any more of the kind; and no forbidden novel could give greater delight to the heart of a boarding-school girl than did those private reports of the Gloucester *beau monde* to mine. I don't think my mother was quite convinced of the genuineness of their piety; my aunt's husband had been a canon; there was a brother of hers still in the Church; but still the whole family came seriously to the hall, and executed every kind of small commission for her in Gloucester, which was our chief town. So my mother hoped they were edified by the Wesleyan preachers, invited them on long visits, and sent them well-filled hampers from the orchard, the poultry-yard, and the dairy. In return, she went to see them sometimes—not often, for my mother was a great stayer at home, and her time was much occupied with the poor and the traveling preachers. The doubts I have referred to made her unwilling to let me visit them, except in her own company, when we always found the high dresses on, hymn-books on the table, and the whole house in a state of great sobriety. There was nothing else to be looked for in the presence of mamma, and no going without her for me, until a certain lucky chance, as I thought it, furnished the long-coveted opportunity.

“I had caught a severe cold at the beginning of the winter; the cough clung to me week after week; my poor mother grew anxious about me; and our family doctor advised my removal from the cold, bleak air of the Forest to that warmer part of Gloucestershire called the Vale, where the town of Gloucester

stands. My aunt happened to be visiting us at the time; and, to my boundless joy and gratitude, she at once suggested her own house as the most suitable sojourn. There was no place in all the Vale so warm and sheltered as the Cathedral Close—such a genteel, such a quiet neighborhood, where nothing was to be heard but the playing of the organ and the singing of psalms. Sophy would get quite rid of her cough there, and they would teach her that new sampler-stitch. It would do beautifully to work the slippers for that dear, good, moving man, Mr. Grimshaw—a powerful preacher, with a Yorkshire twang, to whom my mother had taken a special fancy. My cough increased amazingly after the making of that proposal, and it succeeded in overcoming my mother's scruples against the Cathedral Close. I was allowed to return with my aunt, enjoined to get quit of the cold, learn the sampler-stitch, and not allow myself to be led into frivolities. Of course, I promised every thing, and so did my aunt; and to do us both justice, we had some intention of keeping at least the letter of our promises. Things went on very soberly for some time after my arrival in Gloucester; my aunt and cousins thought seriousness a good thing, and wanted to please my mother. I saw the sights of the quiet old town—the castle, the mineral-wells, the Assembly Rooms—that is to say, the outside of them; and matters went on in the strictest line of duty till about the middle of December, when the whole family got an invitation to Lady Tracy's ball.

"I shall never forget their faces round the breakfast-table when the maid brought in the note. 'Left by Lady Tracy's footman, mum,' said she. My aunt broke the seal, read it first to herself, then handed it to Alice, who read and passed it on to Grace: she was always the proudest of being in good society, and before any body could stop her, read it aloud.

"You'll never have sense, Grace," said her mother.

"Where is the use in making a secret of it? You know we must go, and we will go. Wasn't it kind of her to invite Sophy?" said triumphant Grace.

"Yes, I had been invited; with my own ears I heard that Lady Tracy would be happy to see the young relative who, she understood, was now a visitor at their house.

"It was kind of her," said my aunt, having got over the first shock of it; 'and I'll allow it would be a nice opportunity for Sophy to see genteel life; but what would her mother say?'

"She needn't know any thing about it," said Alice. That suggestion broke down the last barrier of conscience between me and the denounced frivolities. To see a real ball at the house of a Gloucester fashionable—to look on the dresses, to hear the music, to behold the dancing, to go down to supper, and up to the minuet, as my cousins had so often described these things, was too strong a temptation to be resisted by the virtue of seventeen.

"I am sure mamma need not know," said I; 'and I should so like to go just this once, if you will let me, aunt.' I felt the tears coming into my own eyes; I knew my cousins liked me, and my aunt was good-natured to a fault.

"I don't think it any harm myself, and I wouldn't stand against your going, Sophy," she said; 'but, my dear, you have no ball-dress; there is scarcely time to get one, and I am sure your mother would not allow the money for it.'

"Oh! dear, we forgot that," said Grace and Alice, with uncommonly blank faces. I knew they had nothing to spare, and would find it rather difficult to get their own finery up; but resources were always my first thought. I pulled out the little purse containing all my pocket-money, and emptied it on the table-cloth.

"Only two guineas and a half," said the keen-sighted Grace; 'my dear, that would never do. Your mother might have allowed you more than that, coming to Gloucester; but she can't, I suppose, giving so much to those Methodist preachers. But stay a minute. Mamma, might not Sophy get a dress quite cheap and good enough for one evening from Mrs. Jenkins, the wardrobe-woman? Miss Smithson's maid told our Sally that she got that beautiful gauze we saw at the quadrille-party there.'

"I dare say she might, and we could make it fit her; but I am afraid Sophy can't dance," said my aunt.

"It was true I could not; the exercise in question being regarded as a special piece of the Old Serpent's policy, had been of course forbidden to me; but Grace had not exhausted her expedients.

"Never mind; I'll teach her a minuet,

that easy one they call Mecklenburg—Queen Charlotte's, you know—she'll learn it in no time. Alice, you'll write to accept the invitation. Sophy and I will go off to Mrs. Jenkins's; I want a bit of lace to make us tuckers and trim your cap, mamma; but I should like to see her frock got first.'

"My active cousin and I repaired to Mrs. Jenkins's shop: it was a very respectable one of the kind; the good woman boasted that she bought and sold nothing but real gentry's clothes. Grace had many tales of the beautiful things quite new, and got for half nothing by her acquaintances of limited means; and under her management I obtained an amber-colored taffeta, trimmed with purple satin. It was rather a conspicuous dress, but fashionably made, not the least soiled, and almost a perfect fit. Mrs. Jenkins said she would not have let it go so cheap, but there were very few it would answer; the young lady who wore it first must have been uncommonly slender, as I was then, but she added: 'I don't know who it was; the dress came to me by an honest poor woman who gathers the like for me through the country; and I think she got it some where up in Somersetshire, at the house of a clergyman; so you see it's quite respectable.'

"We returned in triumph to the Cathedral Close. My dress was pronounced a decided bargain, and quite the thing for Lady Tracy's ball. It certainly was a surprising fit; and my aunt and cousins agreed that its original owner, if the dress became her at all, must have resembled me in complexion as well as in figure, for the strongly contrasted colors suited me exactly. We had a deal more to think of in the ten days of preparation then allowed for first-class assemblies; there were the tuckers, the lace lappets, the washes of our faces, the red heels of our shoes to be looked to. I think we had all twinges of conscience, too, for the deceit about to be practiced on my mother; they should have been worst with me, but I had Queen Charlotte's minuet to learn—*Minuet de Mecklenbourg*, as the French dancing-master called it. I never knew how Grace got him bribed or coaxed (for I am sure he was not paid) to come over one or two evenings from his seminary in the next street, and give me a private lesson, by way of finishing off her efforts. I learned the minuet even

to his satisfaction. I got reconciled, by help of frequent practice at the glass, to my own appearance in the amber and purple; I got my conscience quieted also even to the wearing of rouge, indispensable for good company at that period; I got my hair dressed the night before, as every body did for balls; and sat up with my cousins till the morning, that the gummed curls might get time to dry, and keep properly in their places, which never required less than four-and-twenty hours. How easily people dress and go to balls in these days; and how odd one would look with those tiers of gummed curls, mounted on stiff wires, and pads of horse-hair; yet there was something grand and worth looking at in that old style; it made one a foot taller. Ladies did look ladies then, with their towering head-dresses, open skirts, brocaded petticoats, and high red heels. Don't laugh, girls, your own fashionable evening-dresses will look quite as queer to your grand-children. But to go on with my story. We sat up all night—I mean my cousins and self, for my aunt, being in the dowager class, did not require such a high gumming, and could go to bed. Half the time we talked, the rest we read Miss Burney's novel, *A Young Lady's Entrance into the World*; it was the great work of the day, and had got the length of Gloucester, where, let me tell you, there was a good deal of gentility, and Lady Tracy was reckoned to stand at the head of it. My cousins told me so much about her in the days of preparation and the night of curl-drying, that I knew all her history as well as any of the townspeople, and the subsequent events at the ball stamped it on my memory. She was not only connected with the best county families, but famous for a kind of hereditary talent, said to be possessed by all the ladies of her line, for managing mankind in general, and those of her own house in particular.

"The lady was a Tracy by birth as well as by marriage. By the by, it is a very old name in Gloucestershire. Her late husband, Sir Edward, had been also her cousin. The Tracies had a habit of marrying their cousins; people were not sure whether it was pride or prudence that got them into it, but Sir Edward had died many years before, leaving one daughter and one son. The son was by five years the younger; he was heir to

the title and estate; but the latter was not large. The Tracies had always lived handsomely, and never would condescend to do any thing that might improve their property, because it looked like trade or business, which they counted entirely beneath them; and the property was heavily encumbered with Lady Tracy's jointure, a provision for her maiden sister, Miss Tracy, who had always lived in the house, and a marriage-portion for the daughter, Miss Agnes.

"It was therefore thought requisite that young Sir Edward—they kept that name in the family from one generation to another—should look out for a fortune with his bride. His mother undertook that business, as she did every thing else; for according to the belief of all Gloucester, there was nothing in the way of management her ladyship could not do and had not done. From the poorest cottager to the richest farmer on the estate, from the green-grocer and the milkman in town, up to Sir Edward and all his relations, Lady Tracy had ruled, directed, and governed them and their affairs. Her maiden sister, Miss Tracy, was generally allowed to be a considerable help. Miss Agnes had been 'brought out' for some years, and was also acknowledged assistant. Among the three, young Sir Edward was believed to be the best managed man in the west country; they had sent him to school, they had sent him to college, they had told him what to do at all times and places, they had seen that he did it, and they had determined on marrying him to Lady Sarah Harvey, one of the Bristol family, and a great fortune; by the by, they said it came from an uncle in the West-Indies the Harveys were not at all proud of. It was whispered Lady Sarah had been born somewhere in that quarter; and whether she had a right to the title or not, every body gave her credit for woolly hair, an unusually dark complexion, and a decidedly African nose. This lady Sir Edward was appointed to marry by his managing mother, aunt, and sister. She was believed to be nothing loth. Sir Edward was tall, fair-complexioned, and handsome, as all the Tracys had been; his family was old and good, and may be Lady Sarah could not do better. In short, the marriage was a settled thing; the town gossips were sure it would come off very soon, for the bridegroom elect had passed his majority two

years, and nothing but his having been abroad making the grand tour was thought to have postponed the happy day. The Tracies—that is to say, the three ladies—had read his letters from Rome, Florence, and Venice to their admiring friends, and given splendid details of his reception in the best salons of Paris—the wits that had complimented, the duchesses that had been smitten by him, the routs given in his honor by nobles and ambassadors. People did not believe the whole of it; the tales were sometimes over-grand; but every body was certain that Sir Edward had been seeing the world, and learning foreign fashions, ever since his twentieth year, when he left Cambridge rather abruptly.

"There was concerning that, a story which the Tracies did not tell; it had never been more than whispered about in Gloucester, for the dread of the managing ladies lay heavy on the minds of its most devoted gossips. It was now all but forgotten; but the substance was, that the daughter of a portrait-painter, much employed by university men, had made an impression, nobody could say how deep, on the heart of the son and heir. They had got acquainted somehow in sittings; they had been seen taking quiet walks together; the confidential friends of both parties had been heard to talk of an engagement, with exchange of rings and vows, to be fulfilled when young Tracy was Sir Edward and his own master. But the three at home got scent of the secret, it was thought from his college tutor, who knew the family had a living to bestow, and sadly wanted one, being long in orders and out of place. They had all three business in Cambridge directly, made Edward show them over the university, went and sat to the painter for their portraits, contrived to get acquainted with him in a patronizing way, took a deep interest in his daughter; she was the eldest of ten children, I believe. They had very private talk with her and her parents about risks that young people ran in a university town, the deceitfulness of men, and the necessity of getting her settled; in short, they talked the poor people into their way of thinking. It was rather quickly done, I'll allow; but high-handed gentry could do a deal more at that time than they can at present; and before the three Tracies came back to Gloucester, the painter's daughter was

married to Edward's college tutor, and packed off with him to the family living. How far the young man took it to heart could not be ascertained; but he left college some weeks after, though it was the middle of the term, and went on his travels to make the grand tour.

"He had been nearly three years absent, and as many months at home, when the ball was given in honor of his birthday. It fell, on the twenty-first of December, the shortest day in all the year, but one which I have remembered long enough, and not without good cause. The festival was held at the family town-house. West-country gentry kept town-houses in Gloucester then; it was an older and better established place than Bath, and thought more genteel than Bristol, because there was not so much trading there. Tracy House was reckoned one of the finest. Some tradesmen have got better houses now; but it had stood for more than two hundred years in Old Vale street, substantially built of brick, and consisting of four low stories, the company-rooms on the first floor, all but the ball-room, which was on the ground, and partitioned off the kitchen; so the dancers got a knowledge of what they might expect for supper; but it was a known fact that Lady Tracy spared no expense on wax-candles, cut flowers, and the best chalkers.

"After sitting up the night before, and dozing most of the day on our chairs, we got our curls as dry and stiff as heart could wish. My aunt said she never saw heads in better order after the washes, the dressing, the rouging. This last went most against my conscience, but it had to be done, and when it was done I felt certain my mother would not have known me. Our toilets were pronounced complete by half a dozen old friends who gathered in to drink tea and admire us. Our chairs were called, and for the first time in my life I went in a sedan to meet good company. I need not tell you what a bustle there was in Old Vale street; a ball in those days upset not only the neighborhood, but the entire town. The chairmen pushing, and occasionally fighting with their poles; the clusters of heads thrust out at every window and door; the crowd of inferior people in the street making as much noise as they could, and pressing on to see every body that stepped from a chair; the flare of links

and torches, and the general uproar, would have been too much for my rustic senses, but for the greatness of the occasion, and the supporting presence of my aunt and cousins. With them I passed over the carpet extending from the gutter in front of the house to the hall-door, guarded by men with torches and staves, to light the company and keep off the mob, through the row of servants within, who announced us to the ladies of the family at the entrance of the ball-room. They were Lady Tracy, Miss Tracy, and Miss Agnes Tracy—tall, bony, plain women, every one of them, with looks at once hard and sharp; and thanks to the rouge and gummed curls, no body could have guessed which was the oldest. I had never seen them in my life before, yet the whole three gave me a stare of amazement, which I am sure they did not mean, for the Tracys were well-bred people; but they recovered their composure the next moment, returned our courtesies—I fear mine was awkwardly made—and gave us the usual compliments and thanks for being so good as to honor their house with our presence; on which my aunt assured them that the honor was done to us; and, with all the ceremonies of good-breeding, we were shown to our seats on one of the lines of chairs and sofas ranged against the wall, where the ladies sat, and the gentlemen stood by till most of the company arrived, and the dancing began.

My aunt presented me to all the Tracys, including Sir Edward, who came to make his compliments as soon as we were seated. He was, as I had been told, a tall, fair-complexioned young man, but very thin like the rest of his family. His hair was curled in the first style, his shoe and knee-buckles were set with diamonds, and his ruffles were of the best point. His manner was polite; and he might have been called handsome, for his features were better than those of the ladies; but there was something sad and sour in his face, which I thought very strange for a young man and a baronet; he spoke little to any body, had a habit of looking watchfully about him; and I afterward heard my aunt and cousins saying among themselves how very much Sir Edward was altered by his travels, for all the grand doings he had seen and shared in. For the present, they congratulated him on looking so well, and wished him many happy returns of the

day. I did my best to follow their example; but the stare the three ladies gave me had not quite gone off my mind when he came up, and Sir Edward's first look fairly threw me off my balance. It was a scowl of uncommon blackness, as if he had suddenly caught sight of somebody who had done him a serious wrong, but it passed as quickly as lightning. I don't think my aunt and cousins noticed it at all, they were so occupied with their own manners and the incoming company.

"I was duly presented; Sir Edward spoke to me as he did to the rest, but in a lower tone; then went to do his devoirs to other ladies, but from all ends of the room I could see him stealthily watching me. The thought of that made me unhappy, in spite of the gay dresses and the fine people who filled the room. All the *élite* of Gloucester were there; my kindly aunt and cousins took both pride and pleasure in pointing them out to me: it was not thought rude in my young days, but rather a sign of distinction. They showed me Lady Sarah in diamonds and brocade; how black she was and how well her hair suited the cued curls! They also showed me a tall handsome young officer, then called Lieutenant C—, and supposed to be an admirer of Miss Agnes Tracy. There were a great many more notables, whom I have forgotten. They introduced me to some, but none of them looked at me as the Tracies had done; and I felt quite reassured when Cousin Alice whispered: 'Do you know, Sophy, that Sir Edward has lost his heart to you; he looks at you from all quarters. Methodist as your mother is, I think she would get over the ball for such a conquest.'

"Of course I was flattered by the fact of Sir Edward looking at me from all quarters, as any country girl of seventeen would have been. I had not lost my heart to him. I am certain it never could have gone that way; but he was the great man of that society—which seemed to my inexperience the grandest in the world—the owner of an estate, and a baronet. It was no fancy of Cousin Alice; he did look at me from time to time, but not as if he wished to be observed. I couldn't help looking at him in return from behind my fan, the only way proper for a young lady; but when my attention was diverted by the entrance of a great Gloucester lady and her

seven daughters—they were all immensely large women, but I have forgotten their names—Sir Edward was suddenly missed out of the room. I saw his mother looking for him; I heard my aunt say, 'What has taken him off?' but in a minute or two he was there again, making compliments, receiving congratulations, and casting watchful, stealthy glances at me. Under any other circumstances, I would not have liked them. I did not like to think of the fierce frown he had cast on me at first sight, but my experienced cousin had assured me of a conquest; and it was with a flutter of girlish vanity that I saw the young baronet, after leading Lady Sarah and some of the more distinguished guests through as many minuets, approach and request the honor of my hand for the next. There was nothing ill-natured or envious in my cousins; Alice adjusted my tucker, Grace whispered not to forget that I preferred the *Minuet de Mecklenbourg*. My aunt gave permission for me to dance, which Sir Edward asked in due form; and to my own great amazement and greater pride, I was conducted by the bowing baronet to the clear space in the midst of the room where the dancing went on.

"Minuets would be thought a dull business by young folks of these days, but they did not derange the cued curls, or put one's sack out of the proper folds; they did not take up much room either. The clear space I have mentioned was a chalked strip in the center of the ball-room, extending almost from the entrance-door to one at the further end which opened on the orangery—an old-fashioned kind of greenhouse, with steps leading down to the garden, for the ground on which Tracy House stood was a perfect slope. The orangery was well kept, and specially decorated for the ball, the shrubs and plants being arranged so as to form a kind of arbor, with two tables in it—one with Sir Edward's birthday presents, set forth in full display, and the other furnished with light refreshments for the ladies who went there to get cool after dancing, and survey the gifts, which, being mostly from the Tracys' rich relatives, were thought well worth seeing. I mention these things that you may understand what followed. In the mean time, I of course preferred the *Minuet de Mecklenbourg*. The or-

chestra, consisting of two hautboys, and as many violins, were set to the appropriate air. I believe my step would have satisfied the dancing-master in his most scrupulous moment. Cousin Grace smiled approvingly on me from her distant seat, and I heard Lieutenant C—— say to his partner, Miss Agnes: 'From the country, you say; how gracefully she dances!'

"We had finished the minuet, and I expected Sir Edward to conduct me to my seat, but instead of doing so, he led me toward the orangery.

"You have not seen my birthday presents yet, nor our two lemon-trees, which are counted among the wonders of Gloucester. All the rest of the ladies have seen them; come and see them too;' and without waiting for my answer, he opened the door, and led me in. I was young, utterly unacquainted with society at the time, and greatly delighted with the notice and honor shown me by the young baronet. Beside, I had seen other ladies go into the orangery with their partners, and though doubtful of what my aunt would say, and rather surprised to see nobody there but ourselves, I found the birthday presents exceedingly engaging. There were silver cups, point ruffles, embroidered night-caps, and snuff-boxes of uncommon shapes and workmanship. Sir Edward showed them all, told me the names and residences of the titled relations from whom they had come, showed me the two lemon-trees also—they were nearly as tall as myself—and made several flattering comparisons between me and the surrounding flowers. From seeing him in the ball-room, I never could have imagined he could talk so agreeably. The sadness and sourness were gone from his face; they were gone from my memory too, and I never observed where we were going, till he opened the door, and led me out upon a kind of balcony, from which a flight of stone steps led down to the garden. They had an iron railing, but the balcony had none; it was a dangerous condition to keep the place in, but the Tracys never spent any money on their house that they could help; and I felt half-frightened when the full moonlight—it was the clearest winter weather I ever saw—showed me the unguarded precipice and the wide lonely garden below. At the same moment, I saw Sir Edward rapidly turn an outside key in

the door behind us, and then turn to me. Before I knew what to say, he seized me by the arm, and drew me toward the unguarded edge. 'Look down,' said he. 'Is it not cold and quiet in the moonlight? That garden would be a lovely place for a grave.'

"Let us go in,' said I, turning from him in mortal terror, for his face had changed to something like the look of a vicious dog about to spring, and I could hear the grinding of his teeth.

"No, we won't go in,' he growled, in the same surly tone; 'we won't go in till you tell me what brings you here to mock me, after what you did in breaking your promise, and sending me to the madhouse. Yes, it was you that did it all; I was kept under their keepers and strait-waistcoats for nearly three years by your doings; but I'll have revenge. I made this for the keeper one night, but it will do for you.'

He had fumbled something out of his dress-coat pocket, which I could not see; I think the terror and confusion stupefied me for the moment, and as he spoke, I felt a noose of cord thrown quickly round my neck, and then a violent push, which sent me over the edge of the balcony, while he held the end of the cord in one hand, clutched the iron railing with the other, and planted his feet firmly on the steps. My escape was predestinated, I suppose, for, in the act of falling, my toes caught in a projecting ledge of wall. I never knew the value of life till that moment. With the energy of despair, I flung out my arms, and fortunately caught one of the rails some distance below where he stood, and held on to the ledge of the wall with my feet. He saw my advantage. How horrible his face looked in the moonlight, the eyes glaring, and the teeth gnashing, like one possessed.

"Ah! you won't get off; I'll hang you, you perjured witch; you won't send me to the madhouse again.' That growl was given in an undertone, and I saw him winding the cord round his hand to tighten it. It was so tight already, that I could utter no sound, and the dreadful feeling of suffocation was on me, but one last expedient for life suddenly occurred to me. With the only hand I had free, I seized the noose, tore the skin off neck and fingers, but succeeded in loosening it sufficiently to utter one scream. I'll

never forget the sound of that cry; it must have startled the half of Gloucester. The next thing I remember is a crash of breaking glass, the figure of a man rushing out from the greenhouse, and the sensation of falling. After that, all was blank, till I found myself lying in a bed in Lady Tracy's house, with my aunt, my cousins, and a number of female servants busy about me, strange sounds of confusion coming up from the ground-floor, and above them all, shouts of curses and imprecations in the voice of Sir Edward.

"I had been saved from him and his noose by the gallantry and promptitude of young Lieutenant C—, who had seen us go into the orangery, heard the cry, and rushed to the rescue. By cutting the cord at once with his penknife, he had let me fall from no great height on a smooth sward which happened to lie below, and then, with the help of some other gentlemen, secured the maniac, for such Sir Edward was by this time, and such I am sorry to say, he continued till the end of his days, and they were lengthened out more than forty years after. The explanation of his conduct toward myself seems to be this: the young man's brain had never been strong; indeed, I believe there was madness in the Tracy family, and under that early disappointment at Cambridge it had given way. The grand tour and the brilliant receptions were merely his clever relatives' account of the time he passed in a private asylum. The dress I had bought from Mrs. Jenkins was traced to the clergyman's house in Somersetshire, which happened to be the family living bestowed on his college tutor for taking the painter's daughter so completely out of his way; in fact, it had been worn by her at one of the Cambridge balls, and disposed of as an article too gay for her married days. My resemblance to her in figure and complexion made the dress suit me so well, it probably made the resemblance more perfect; hence the surprised stare of the three ladies, and the illusion which

had finally upset Sir Edward's reason, and endangered my life.

"I need not tell you that we got home to the Cathedral Close as soon as we could. The ball had been brought to a premature conclusion; the whole company had heard my scream, and the affair could not be kept from becoming public. We were therefore obliged to let my mother know all about it; indeed, every one of us, and particularly myself, considered it a special judgment on our deceit and disobedience. Worthy woman, she first gave thanks for my providential deliverance, then came to Gloucester with all speed, and gave us a sound lecture, which doubtless would have been longer and more impressive, if Lieutenant C— had not politely called at the time to inquire after my health; and my mother being a gentlewoman as well as a Methodist, took the opportunity to make suitable acknowledgment, and ask him to visit at our house. The Lieutenant did visit us in the course of the same winter. He had never been engaged to Miss Agnes Tracy, who, by-the-by, lived and died an old maid, like her aunt. My father and mother both thought him sensible, and hoped to make him serious. He certainly did a good deal to please them in the way of politeness to the old ladies, and listening to the preachers, and succeeded so well, that they gave me leave to marry him on the very day twelvemonth in which he had saved my life. Now, there is the true cause of my dislike to look at dancing ever since I was seventeen; the unrailed balcony and the moonlight night, Sir Edward and his noose, came back with every sight of it. It may have been folly, but I never could get over it throughout my long life. It was not a story that one could tell to every body, so I kept it to myself; but the Tracys are all dead and gone now. A well-to-do tradesman owns their house in Gloucester, but he is a person of strict religious views, and the last fashionable assembly ever given there was my only ball."

P R I N C E A L B E R T .

ACCOMPANYING this number of *THE ECLECTIC* will be found a striking and accurate likeness of his late Royal Highness, Prince Albert, the much-lamented Consort of her majesty Queen Victoria. The portrait has been admirably engraved by Mr. George D. Perine, from a photograph taken shortly before his death by Mayall.

We subjoin the following biographical sketch of the Prince :

Albert Francis Augustus Charles Emmanuel, Prince of Saxe-Coburg-Gotha, and consort of Queen Victoria, was born August twenty-sixth, 1819, and was the second son of the Duke Ernest I., who died in 1844. Prince Albert was educated along with his elder brother, Prince Ernest, the present Duke-regnant of Saxe-Coburg-Gotha, under the Consistorial Councillor Florschütz, and subsequently at the University of Bonn. His studies are described as including, beside the languages and history, the physical and natural sciences; and also music and painting, in both of which arts he attained considerable proficiency. Prince Albert was married to Queen Victoria on the tenth of February, 1840, at St James's chapel, having a few days before been naturalized by Act of Parliament. By an Act which received the royal assent August fourth, 1840, it was provided that, in case of the demise of her majesty before her next lineal descendant shall have attained the age of eighteen, the Prince is to be Regent until such age is reached. The Prince was not unmindful of the grave responsibilities which his position cast upon him, or of those which might possibly accrue. Almost immediately after his settlement in this country he read a course of English constitutional history and law with one of our highest authorities, Mr. Selwyn; and whilst he has most judiciously held himself aloof from all political parties, he has at different times shown an intimate acquaintance with the general bearing of great public movements, such as could only result from a careful study of the principles of our social economy, a clear knowledge of English institutions, and a considerate

observance of the progress of events. In many of those public questions which are distinct from party politics, and in nearly all those which bear on the improvement of the physical condition of the poorer classes, on the progress of the mechanical and fine arts, and in various benevolent projects, the Prince has taken a very active part; and his speeches on public occasions have always shown an intelligent appreciation of the objects sought to be accomplished. As the head of the Fine Arts Commission the Prince did much toward setting in motion that effort to reach the higher purposes of art which has characterized the painting and sculpture of the last twelve or fourteen years; and he has, by his zealous patronage of schools of design, evinced an equal desire to aid in raising the artistic character of our manufactures. But it was as the chairman of the Council of the Great Exhibition of 1851 that his activity and knowledge found its widest scope and fullest development; and it seemed to be admitted by all who were intimately connected with the origin and progress of that great undertaking, that it owed very much of its high position and ultimate success to the taste, judgment, and tact of Prince Albert.

The Prince was a field-marshal in the English army and a colonel of the Grenadier Guards, and it was said he took much interest in the state of the army and the condition of the soldier; but his tastes and pursuits were for the most part entirely of a pacific character. The fine and mechanical arts did not, however, engross his attention. His name appears in the lists at the Smithfield Club, and other leading agricultural exhibitions, as a competitor, and generally as a successful competitor, for the prizes annually adjudicated for superior breeds of cattle, etc. He had indeed given a good deal of time to agricultural pursuits, and his "model farms" at Windsor are said by practical farmers to be really entitled to their designation.

Beside those above mentioned, the Prince held several offices under the

crown. He was elected in 1842, after a sharp contest, Chancellor of the University of Cambridge; and he was President of the Society of Arts, Grand Master of the Free-Masons, and patron or president of various benevolent and other institutions.

An account of the sad termination of

his useful life, with the closing scene, was published in the last volume of this work, at page 273. His Royal Highness Prince Albert died at Windsor Castle on the fourteenth of December, 1861, to the inexpressible grief of the Queen Victoria, the royal family, and the whole British nation.

L I T E R A R Y M I S C E L L A N I E S .

BEAUTIES SELECTED FROM THE WRITINGS OF THOMAS DE QUINCEY, Author of "Confessions of an English Opium Eater." Embellished with a fine Portrait of De Quincey. Pages 432. Boston: Ticknor & Fields. 1862.

THE publishers of this work have rendered an eminent service to all the admirers of the works of De Quincey, in gathering this splendid constellation of "Beauties" of this renowned author, who is "one of the greatest masters of the English language."

He wields a pen of graphic power. His pen seems to scintillate as it darts along the page, scattering the gems of sparkling thought which delight and entrance the reader who thoroughly appreciates their "Beauties." We open at random to page 158. The author is speaking of education in the nursery, etc. He says: "By education is meant—not poor machinery that moves by spelling-books and grammars, but by that mighty system of central forces hidden in the deep bosom of human life, which, by passion, by strife, by temptation, by the energies of resistance, works forever upon children, resting not day or night, any more than the mighty wheel of day and night themselves, whose moments, like restless spokes, are glimmering forever as they revolve."

It has been said of Dr. Young, author of *Night Thoughts*, that his pen never touched a subject but to adorn it. So it is with De Quincey, his pen touches a subject and light and beauty shine through it, exciting the mind to admiration at the ease and power and strength and beauty of his language.

The contents of this volume are rich in the "Beauties" which adorn his works. To those who are familiar with his writings, it will be enough to announce the publication of this volume in the usual neat and tasteful style in which all their publications appear before the public.

EXPERIMENTAL philosophy—asking a young lady to marry you; natural philosophy—looking indifferent, and saying you were only in fun, when she refuses you.

It is well to be a man among men, and not a dreamer among shadows.

ADVICES from India state that the holy city of El Islam, Mekka, has been visited by unusually heavy rains. Five hundred houses had been washed away, and the loss of life and property was enormous. The water rose ten feet above the door of the Kaaba, in which sixty worshipers were drowned. The invaluable library of ancient MSS. had been destroyed.

ELEVEN millions gallons of wine were consumed in England during the year 1861.

TALENT and worth are the only eternal grounds of distinction. To these the Almighty has fixed his everlasting patent of nobility, and these it is which make the bright immortal names to which all may aspire.

HARSH JUDGMENTS.—If you must form harsh judgments, form them of yourself not of others; and, in general, begin by attending to your own deficiencies first. If every one would sweep up his own walk, we should have very clean streets.

THE Bible is a window in life, through which we look into eternity.

NATURE preaches cheerfulness in her saddest moods; she covers even forgotten graves with flowers.

THERE is in the heart of a woman such a deep well of love that no age can freeze it.

FACTS.—In this age of speed, when we travel thirty miles an hour, are we less impatient to be at the end of our journey than when we traveled ten? In this age of cheapness, are we more satisfied with our bargains, or more benevolent with our surplus, than formerly?

THE ancient Greeks buried their dead in jars. Hence the origin of the expression, "He's gone to pot."

RICHERS AND POVERTY.—There is no fortune so good but it may be reversed, and none so bad, but it may be bettered. The sun that rises in clouds may set in splendor, and that which rises in splendor, may set in gloom.

COUNT NESSELRODE.—Advices from St. Petersburg mention the death of Count Nesselrode, one of the latest survivors among the men who took part in the great revolutionary war. Count Nesselrode's diplomatic services to the Russian empire, however, date further back even than the wars with France. He was born about the year 1770, and was consequently upwards of ninety years old. His father, who was of a German family, as nearly all the public men in Russia are, was ambassador in the service of the Empress Catherine; and young Nesselrode, who began life in the army, soon found his way into the diplomatic service. He was a favorite with the Emperor Paul, and was believed to share with that monarch admiration for Bonaparte, and dislike toward the interests of England. On the assassination of Paul, Nesselrode anticipated dismissal from his employment; but he had become too useful to be removed, and too pliant to render that step necessary. Under Alexander he had no scruple in breaking with Napoleon and attaching himself to the cause of the allies, though it may be doubted whether his secret leanings, discreetly applied, had not considerable influence in inducing his master to wheel round to the side of Napoleon. He accompanied Alexander on that memorable occasion when Alexander and Napoleon had their personal interview on the raft in the middle of the river at Tilsit, and assisted afterwards at the treaty which is known by the name of that town. In fact, through all the oscillations of Russian policy during the war, Nesselrode remained by his master's side, his influence, ever widening and extending. At the Congress of Vienna he took an influential part. In conjunction with Metternich of Austria he drew up the treaty of the Holy Alliance; and all through the forty years of peace his name was popularly considered as the incarnation of Russian policy, menacing or cajoling all neighboring states, and repressing free thought wherever his influence extended. He remained in office through the Crimean war, but retired at the peace, and he has not since been in active employment. While he was in power his name was feared every where, but he founded no school. He lived to see the downfall of his system and the reversal of his most cherished maxims of policy.

MARRIAGES AS AFFECTED BY THE WAR.—The total number of intentions of marriage issued in Boston during the year 1861 was twenty-three hundred, a decrease of three hundred and eighteen from the previous year. This decrease is doubtless the result of the civil war and the consequent prostration of business which followed.

PRINCE WINDISCHGRATZ.—The Austrian Prince Windischgrätz, whose death is announced in the latest accounts from Vienna, entered the military service in 1804. He commanded the cuirassiers of the Grand Duke Constantine at Leipsic, and distinguished himself during the French campaign at Troyes and at La Fère-Champenoise. His military renown, however, dates from the year 1848, when he suppressed the Slave movement in Bohemia, and maintained a four days' battle with the inhabitants of Vienna. His wife perished at Prague on the 11th of June, in the same year, having been killed while sitting at the window during the émeute. Conqueror at Prague and Vienna, he was defeated by the Hungarians, having been driven from Pesth-Buda by Georgey in April, 1849. Since that time he has lived in retirement.

THE BRITISH NAVY.—The annual official return of the navy was published on the last day of the year. The list shows a total of 856 vessels building, preparing, or in commission, of which 702 are steamers, and comprises: "81 line-of-battle ships, each mounting from 74 to 131 guns; 22 vessels, each with an armament of from 60 to 70 guns; 44 51-gun frigates, the whole, with the exception of about 10 of that number, being screw-steamers; 57 ships, each mounting from 22 to 50 guns, and the majority of which have a tonnage as large as ships of the line; 29 screw corvettes, or frigates, each mounting 22 guns; 317 screw and paddle-wheel steamers, each carrying less than 22 guns; and 185 screw gunboats, each provided with two Armstrong guns."

A MAMMOTH telescope, probably the largest in existence, has been lately finished by Mr. Alvin Clark, of Cambridge, Mass. The acromatic object-glass is eighteen and a half inches in diameter. Those of Harvard University and the Pulkava Observatory, St. Petersburg, hitherto considered as the finest in existence, have object-glasses fifteen inches in diameter. That of the Greenwich Observatory is twelve inches in diameter, and one has been made in Munich of seventeen inches. On being placed in a temporary tube lately, and turned upon the star Sirius, Mr. Clark's great telescope revealed an extremely minute companion star distant about ten minutes following, which was probably never before seen by mortal eye. The telescope was made for a Mississippi college, at a cost of \$11,000, but the war has annulled the contract, and it is now for sale. Efforts are making in Boston to secure it for that city, but it will probably be sold to some foreign purchaser.

A FISH A WITNESS IN A COURT OF JUSTICE.—This rather startling incident actually occurred at the Stafford Assizes, lately, in the cause, "Timmins vs. the Birmingham and Staffordshire Gas Company," in which the plaintiff sued the Gas Company for damages caused by them in allowing the "gas tank-water" from their gasometer to flow into the plaintiff's well. Dr. Letheby, the analytical chemist, and officer of health of the city of London, being engaged as one of the scientific witnesses on the part of the Gas Company, he thought to prove that gas water could not have entered plaintiff's well, because he found animalculæ in the water. Mr. W. M. Williams and Mr. Bird, the chemical witnesses for the plaintiff, suspecting that the learned doctor would advance the theory that animal life can not exist in water tainted with gas, determined to give it a flat contradiction by producing in court a live fish, swimming in a mixture of half an ounce of the gas tank-water, with twenty five ounces of pure water, having about the smell and taste of the water in plaintiff's well. Accordingly, a fine healthy gudgeon was caught in the river at Stafford, put into a basin, the basin filled with the above mixture, and slipped under a seat in court, ready for the doctor, should he advance his theory, which, upon his examination, he soon did, asserting most positively that the least taint of gas in water would destroy animal life, when, to his evident surprise, and amidst a general roar of laughter, in which the learned judge heartily joined, the basin with the fish swimming in it was lifted up and placed on the center of the table, full in view of both judge and jury, and proving, by his healthy movements, that though the water was not agreeable, animal life was still possi-

ble in it. When the trial was over, (which was in favor of the plaintiff,) the fish was taken back to the river, and returned to his "native element," none the worse for his short visit as a witness to Stafford Assizes.—*London Daily News*.

THE JUDGMENT OF SOLOMON.—A young man of Fünfkirchen, having promised marriage to two young girls, each appealed to a court of justice to compel him to marry her. Both supported their pretensions by the most convincing proofs of affection on the part of the young man, who, on his side, admitted all that had been alleged, declared his equal love for both, and expressed his willingness to marry whichever of the young women the judges decided that he should take. The court, having regard to the slender means of the young pretender, decided that the richest of the two girls should pay three hundred florins to the other, and that she might at that price satisfy the cravings of her heart.—*Frankfort Journal*.

WE have artificial teeth, artificial hair, eyes, calves, hips, noses, and artificial morality. We believe that some young ladies must wear artificial heads, as we read of a young lady whose "head was turned" by a young man.

A "JUNGLE" IN THE REGENT'S PARK.—There are, of course, some difficulties attendant upon the construction of an inclosure sufficiently large to give ample room to the agile limbs of the feline race, sufficiently strong to withstand the fiercest assault of the lion, and properly roofed so as to counteract the danger of a leopard or jaguar climbing over its walls. I can not but think, however, that it would be quite practicable to construct an inclosure that would comply with all these requisitions, and at no very extravagant outlay of space or money. The inclosure might be common to all the feline race, and each species might be allowed to exercise in it in regular rotation. There would be no difficulty in decoying them back to their dens, as a piece of meat would effectually accomplish that design, and allow of the door of communication being closed while the animals were engaged upon their food. The interior of the inclosure should be furnished with artificial rockwork and trees, and I have often pictured to myself the magnificent sight of a pair of lions or tigers careering round their pleasure-ground, exulting in their strength, or a company of leopards disporting among the branches, and displaying their lithe forms in all their spotted beauty.—*London Society for March*.

THEY debate strange questions down east. The last was: "What is the difference between the Bridge of Sighs and the size of a bridge?" The next is to be: "The difference between a fac-simile and a sick family."

ANTI-CRINOLINE MOVEMENT.—We have received a report of a most interesting and amusing meeting, attended by a very numerous and highly influential body of the ladies of Tyburnia, convened by circular, and held lately, upon the subject of the abolition of crinoline, and establishing a society to effect that object. Although the meeting was convened by ladies of high position, with a lady secretary, a gentleman was appointed to preside on the occasion, and he freely expressed his opinion that the present fashion of crinoline for ladies' apparel was a nuisance

to the community generally, and a highly dangerous under garment, and an expensive one to the fair wearers in particular. After quoting from Lord Palmerston, and other high authorities, the chairman congratulated the meeting on the large assembly of ladies he saw around him for such a praiseworthy object. The lady secretary and several other ladies spoke upon the danger from fire, as well as on the general inconvenience of crinolines; but the garment found a defender in one young lady, who stated that their dangerous character from fire was about to be obviated by the introduction of fire-proof crinolines, made more portable and convenient. It was ultimately resolved that the use of crinoline is inconvenient, ridiculous, and highly dangerous; and that proper steps should be forthwith taken to set these facts before the public, to bring about its early disuse. A committee having been engaged to conduct the "Anti-Crinoline Movement," the meeting adjourned.—*London Observer*.

ALMOST every young lady is public spirited enough to be willing to have her father's house used as a court-house.

THE deficit in the budget of the kingdom of Italy is estimated, if expressed in our currency, at seventy millions of dollars. The deficit for 1861 and 1862—the two years of the foundation of the Italian Kingdom—will, therefore, amount to \$150,000,000. Of this, the public lands, loans, taxes, and other revenues will clear off a part, leaving an unprovided deficit of \$35,000,000. The unprovided deficit of Austria for the same time is \$45,000,000. Italy hopes to get rid of her deficit by increased taxation, and Austria will try another plan.

AN OLD-MAID'S LOVE RECOLLECTIONS.—He was resolved to travel, and so he went off to foreign parts with merchandise; and by the brookside he took leave of me, and said: "Frances, so long as the brook runs, I will be faithful and true at heart to you, and be you the same to me." He could say all these fine words, and write them down, too; that is the way with these false men; I could never have believed it. In the course of four years I got seventeen letters from him—from France, England, and Spain. For a long, long time after, I never got one. I waited fourteen years, then I heard that he had married a woman in Spain. I never wanted to hear any more of the bad man. I took out of my drawer the fine letters that he had written to me, and I burned them all, my love going off with them in smoke up the chimney.—*German Pastorals*.

To men, the star of love is like Venus in the sky. In early youth, it is a dreamy Hesperus, or an evening star, filling their world with a twilight of flowers, and the songs of nightingales; later, it is the morning star of purity and power, that makes known the day; and they can be united so as both to become one star, only through the fit time of their appearance.

MAN ought always to tremble in the presence of his highest happiness; as also to believe that there is a soft, gentle dew from heaven, that ever falls upon the stony earth; and that there are calm, tranquil places, even in the cavern of the winds, where he could sink into the pure, open flower-cup of peace, as the pure and perfect pearl is found in the melancholy, stormy sea.

THE POLAR STAR.

STAR of the North, whose clear, cold light
Breaks on the darkness of the sky,
When solemn-paced the pilgrim night
In silence journeys by.
Watcher by heaven's embattled walls,
How far through nature's circle falls
The radiance of thine eye!
Thou center-point of myriad spheres,
Through aged Time's grey round of years.

Bright dweller by the unfooted North,
New light hath ever clothed thy face,
Since the high God first launched thee forth
Into the boundless space;
Mountains have from their base been cast—
Earthquakes have opened antres vast—
Old ocean changed its place;
Nations and tribes of star-bright fame
Have perished—thou art still the same!

Thy glance is ever bold and bright—
Thou never weariest in thy task;
What time departs the sable night,
And morn with rosy mask
Glides on through clouds, like hills of snow,
Or in the north's passionate glow
All earth and ocean bask;
Till westward, down the redd'ning air
Drops the round sun—thou still art there!

Long wert thou worshiped as a guide
By the bold dwellers on the sea,
Where neither mark nor track abide—
Changefully eternally!
When o'er them crept the night-hours dark,
Through the wide waste they urged the bark,
By science won from thee:
Till the dark presence of the storm
Smote from their eyes thy beaming form.

What ages, from yon arctic bed
Hath thy deep-fountained radiance shone!
Nor may that golden flame be dead
So long as Time rolls on;
But still, with clear and steadfast rays,
Emblem that faith by which we gaze
On the Eternal One!
The beacon by whose light we ride,
Triumphing o'er Life's dangerous tide.

O bright and beautiful! in thee
We read God's love—his power, how strong,
That through the sky's immensity
Thy giant mass out-flung!
So distant from our rolling world,
That were thy sphere of beauty hurled
From the resounding throng,
Thousands of years might pass away
Ere thine old realm in darkness lay.

WESTBY GIBSON.

"MAMMA," said an inquisitive little lady of some six summers, "what makes the sea so hot in a storm?" "Hot, my dear!" mamma answered, "what makes you think it is hot?" "Why, mamma, I have just been reading about the *boiling* waves."

MENTAL pleasures never cloy; unlike those of the body they are increased by repetition, approved by reflection, and strengthened by enjoyment.

A GENTLE VOICE.—There is one part of woman's education often forgotten or neglected—the culture and formation of a gentle voice. I speak not now of singing hymns, and the culture of harmony and musical purposes, though these tend to God's praise, or to give innocent amusement; but this gentle voice will be able to guide and persuade to good the manly heart of a faithful husband, will mitigate sorrow, lessen trial, and speak of hope and joy to her dearest friends and connections in accents at once powerful and pleasing. How different to a family, for friends and neighbors, are the kind and gentle persuasive accents from sounds we sometimes hear in the close abodes of poverty and trial—high, harsh, female treble tones of bitter import, scolding and reproaching, and driving away from the hearth and home (perhaps to sorrow and sin) the husband and children!

SUSPENSION bridges are said to answer a good purpose; suspension banks don't.

A BEAUTIFUL thought is suggested in the Koran: "Angels in the grave will not question thee as to the amount of wealth thou hast left behind thee, but what good deed thou hast done in the world to entitle thee to a seat among the blessed."

It is as easy to deceive ourselves without our perceiving it, as it is difficult to deceive others without their perceiving it.

THE *Almanac de Gotha* for 1862 gives the following statistics about European armies: France has on a war footing 677,000 men, and 130,000 horses; England, 212,000 men, and 22,000 horses; Russia, 578,000 men, and 70,000 horses; Austria, 588,000 men; Prussia, 622,000 men; Italy, 327,000 men. In maritime force, England, of course, takes the lead—having 823 vessels, (of which 550 are steamers,) carrying 16,000 cannon, and employing 78,000 men. France has 640 vessels, carrying 13,000 cannon, of which 373 are steamers, 58 of them iron-clad. Russia has 513 vessels, (of which 242 are steamers,) carrying 4000 cannon.

A MAN who is not able to make a bow to his own conscience every morning, is hardly in a condition to respectfully salute the world at any other time of the day.

RELIGION AND BUSINESS.—Elliot, visiting a merchant in his counting-house, saw his books of business on the table, and those of devotion on the shelf, and gave his advice thus: "Sir, here is Earth on the table, and Heaven on the shelf; pray don't sit so much at the table as to forget the shelf. Let not Earth thrust Heaven out of your mind."

WHEN Madge was a very little girl, her father found her chubby hands full of the blossoms of a beautiful tea-rose on which he had bestowed great care. "My dear," said he, "didn't I tell you not to pick one of these flowers without leave?" "Yes, papa," said Madge innocently, "but all these had leaves."

THOSE are the most valuable that are the most serviceable; and those are the greatest, not that have the most talents, but that use those they possess the most usefully.

PLAIN TRUTHS PLAINLY SPOKEN.—We have been very much struck with the contents of a pamphlet recently published in Paris, from the pen of a Russian Prince, with a long and unpronounceable name—Dolgoroukow. This work is entitled *The Truth about Russia*, and its contents gave such offense to the Russian government, that they immediately ordered the writer home to account for his conduct. The writer declined the invitation in a letter addressed to the Emperor Alexander, and we crave attention to the following passage, because of the light which it throws on the inner life of Russia—noble and plebeian. "Your Majesty," says the Prince in his reply, "will admit that the only privilege of the Russian noble which the government has not trampled under foot, is that of not being scourged in public, as the rural classes are, but of being scourged privately in the office of the political police. You will not feel astonished, Sire, of learning that I have no intention of returning to claim that noble privilege. The ordinance condemns me to the forfeiture of the title of Prince. Sire, in our days a title to which the exercise of political power is not attached is worthless; and to the vain title of Prince I attach no value. But your Majesty has not the right to deprive me of it, for my ancestors did not receive it from yours. My ancestors bore it by reason of the real sovereignty they exercised, just as you exercise your sovereignty at this moment. My ancestors, as you know, Sire, were Grand Dukes, and governed Russia at a time when your Majesty's ancestors were not even simple Counts of Oldenburg."

No member of the house of Romanoff has ever, we suspect, received from a Russian noble a missive so biting, sarcastic, and truthful as this, and that it should be addressed to the arbiter of life and death in a country purely despotic, is a striking sign of the times in which we live. In another part of the same letter, Prince Dolgoroukow tells the Emperor some equally unpalatable facts. "You reign," he says, "over the largest empire in Europe, and your treasury is empty. You rule seventy-five millions of subjects, and you can not go to war, because you have no money and no regular administration. You have the title of Autocrat, and you can not enforce the execution of your orders; you can not uproot abuses. Landed proprietors are ruined, merchants are ruined, the peasants are oppressed and discontented, and suffering and discontent are general throughout Russia. Sire, this state of things can not last: It is leading Russia to revolution. It is hurrying you to catastrophes, and it is leading your dynasty to its fall and to exile." The Prince, in conclusion, counsels the Emperor to call a Parliament and give representative institutions to the country—just the advice which he is likely to disregard until ruin or assassination overtakes him, as it has done so many of his predecessors.—*European Times*, March 22d.

THE QUEEN AND THE NEW MAUSOLEUM.—The Queen yesterday laid the first stone of a mausoleum in Frogmore Gardens, in which are to be deposited the remains of her dearly-loved husband the Prince Consort, and ultimately her own. Her Majesty, in performing this act of reverential and devoted affection, was surrounded by all her children now in England, and was attended by the Ladies and Gentlemen of her Household in Waiting, and those who had in any way specially attended upon the Prince. Her Majesty, supported by the feeling of the sacred nature of the duty she had to perform, was able to complete the ceremony, and after the stone was laid,

the Dean of Windsor said a prayer asking God's blessing on the work. The few carefully selected persons who were permitted to be present were assembled upon the ground at twelve o'clock, and her Majesty, with no attendants but the royal children, proceeded on foot from Frogmore House (whither her Majesty had previously come in a carriage in the most private manner) to the spot where the stone was prepared. Upon the stone is the following inscription: "The foundation-stone of this building, erected by Queen Victoria in pious remembrance of her great and good husband, was laid by her the 15th day of March, A.D. 1862. 'Blessed are they that sleep in the Lord.'" The building is to be erected under the superintendence of A. J. Humbert, Esq., architect; and the reclining statue of the Prince will be executed by Baron Marochetti. Her Majesty had wished that this mournful ceremony should take place upon the first anniversary of the death of her revered mother the Duchess of Kent, but as that day was Sunday, the eve of the anniversary was selected.

A YANKEE, who came over to the mother country some time ago, and who was asked on going back how he liked Great Britain. "Well," he said, "England was a very nice country, exceedingly fertile, well cultivated, very populous, and very wealthy; but," said the Yankee, "I never liked to take a morning walk after breakfast, because the country is so small that I was always afraid of walking off the edge."

SAY nothing respecting yourself, neither good, bad, or indifferent; nothing good, for that is vanity; nothing bad, for that is affectation; nothing indifferent, for that is silly.

None so blind as those who don't desire to see.—It is a base soul who can see in a noble, though, it may be, unsuccessful struggle, only a theme for ridicule. Only a base soul which, incapable itself of generous aspirations and heroic self-sacrifices, questions the motives which prompt such in others, and rejoices in their defeat. Why waste breath and time to convince those who are predetermined never to be convinced, and whose opinion, if won, counts for nothing? Success is power. Superiority in that shape they may try in vain to shut their eyes upon, though of course its dark shadows, envy and ill-will, muffled though its footsteps be, will always skulk behind. That which a mean soul can not itself attain, it always decries, or endeavors to deny the existence of.

LETTERS from Fernando Po report that Capt. Burton, in company with the Spanish Judge Señor Calvo, and Mr. Gustaf Mann, had scaled the unknown Cameroon mountain. At seven thousand feet above the sea the climate was delightful—"birds singing, as in Europe, forty-five degrees at night, and a sun which one may bask in."

A LETTER from Abd-el-Kader to the French Foreign Minister announces that he is sending to the Emperor Napoleon, two horses from Yemen, of the purest breed which exists in Arabia, and which are descended in a direct line from the famous mare of the prophet!

The cheerful are the busy. When Trouble knocks at your door, or rings the bell, he will generally retire if you send him word you are "engaged."

these cardinal points must inevitably undergo modification when we learn that William the Conqueror was unacquainted with the luxury of a feather-bed; that our early British aristocracy lived on the ground-floor, without drainage; that King Alfred had not a chair to sit down upon, or a chimney to carry off his smoke; that the nobles and dames of the most brilliant epochs of our poetical annals ate with their fingers, generally in couples out of one trencher, on the bare table; that when a lady was in an interesting situation, down even to so late a date as the thirteenth century, she was really "in the straw"—no other description of bed being known in those halcyon days; that a traveling-carriage was an ingenious invention of modern effeminacy; that the use of forks at dinner was unknown to the royal houses of York and Lancaster; and that it was considered the height of good fellowship amongst the Anglo-Saxons to construct their drinking-glasses in the shape of inverted cones, so that they could by no means be made to stand, and must, therefore, have been drained off at a draught. When we shall have plunged deep enough in the medieval chronicles to collect a multitude of little particulars like these, we shall, probably, begin to think that the nineteenth century is not so bad an age to live in after all.

Lamentations over the past are amongst the vulgar errors common to all mankind; and the slightest reflection will discover that they are based upon a radical misconception. The old times, as we call them, were in reality the young times. That which we call the wisdom of our ancestors, was the inexperience of our ancestors working out experiments in the dark. Our progenitors were children; we are men. The present times are the old times; and we who live in them are just so many centuries older than the Egberts, the Canutes, the Harolds, and the rest. A man, as Sydney Smith says, can not go on making a thing for fifty years without making it better; and so we can not have gone on all this time building houses and furnishing them, inventing patent stoves and kitchen ranges, making broad-cloths, carpets, and linen, and summoning to our aid such potent agents as gas, steam, and electricity, without improving upon our juvenile forefathers.

But, as Dogberry says, "Comparisons

are odorous," and very liable to commit us to fallacious conclusions. If we desire to judge dispassionately of the ways of life of those who have gone before us, we must be careful not to set up our advanced condition as the standard. The Anglo-Saxon was himself an advance upon his predecessors, and, no doubt, looked back upon the Picts and Scots with as much compassionate condescension as we, by comparison, look back upon him. As to our superiority, what did he know about it? He did not eat his carp with the less relish because stewed mushrooms and French mustard were unknown in his *cuisine*; and, ignorant of the scientific details of a dinner *à la Russe*, he was justified in considering his wild and plentiful banquet, with its picturesque accessories, as the perfection of hospitable entertainments. What appear to be discomforts in his household are of our making. They were not discomforts to him, in whom "ignorance was bliss," although they would be insupportable domestic afflictions to us. If we could see things as he saw them, we should, perhaps, lose less than we suspect by changing places with him. One fact, at all events, is obvious—that if we had fewer luxuries he had fewer wants, and, in so far, was better off than the people of this pampered and laborious age.

There must have been in the character of the Anglo-Saxons an element of power rarely found in primitive races. Almost all other early races have died out, and left few or no traces behind. The Anglo-Saxons lie at the very foundations of our language and our institutions. They survive in our speech, in the divisions of the kingdom, the titles of public officers, the names of towns and hamlets, and in all articles of primary necessity. To Latin and Roman sources we are indebted for our philosophy and our metaphysics; to the Anglo-Saxons we owe the substantial basis of our domestic life. We build our houses to this day with Saxon words. Pillars, beams, stairs, floor, even thatch, are Anglo-Saxon. House and home, husband and housewife, cradles, wagons, and carts, and a hundred other words, winding into the innermost recesses of our every-day associations, are all Anglo-Saxon. Bread, butter, and cheese acknowledge the same origin; but beef, mutton, veal, and pork descend from the Normans—a significant fact, which throws a broad

side-light upon the culinary history of the middle ages. The obvious inference to be drawn from the lineage of these words is, that "butchers' meat" did not enter very largely into the cookery of the Anglo-Saxons. But we know that they were great consumers of fish, and that the phrase, "kettle of fish," comes from them in its primal sense, because they usually boiled their fish in a kettle, as we continue to do; also, perhaps, in its figurative sense, as an image of incongruity and confusion, because with their fish they generally boiled, or stewed, miscellaneous contributions of herbs, vegetables, and other ingredients.

Most of our fruit-trees, flowers, and vegetables were known to the Anglo-Saxons. Apples, peaches, cherries, mulberries, chestnuts, figs, pines, and even olives were cultivated in England a thousand years ago. The manufacture of cider was in high request under the Heptarchy, when it went by the more direct and suggestive name of apple-wine. Lilies and roses, sunflowers, honeysuckles, daisies, and violets abounded in the pleasure-gardens, which, from the earliest times, were tended with as much care as the borders of a Chinese pavilion, or the tulip-beds of Holland; and in that region which we should designate the kitchen-garden, there were to be found some of the principal varieties of herbs and vegetables, such as cabbages, turnips, and beans, parsley, mint, rue, garlic, and sage.

Our advance in the way of popular amusements has not kept pace with our progress in other directions. Tops and marbles were familiar to the boyhood of great nations long anterior to the dawn of the middle ages. The arts of roadside conjuring, and of tossing knives and balls in the air, and swallowing them with impunity, were practiced in the days of Ethelwolf; and might, possibly, be traced higher up the stream than the Roman invasion itself, if we had any authentic materials to rest upon. From the earliest times down to the end of the fourteenth century, ladies entered freely into the sports of hawking, hunting, and archery. They went out with hawks and dogs, followed the hounds, and used their arrows with considerable effect against stags, rabbits, and all manner of birds. They played nine-pins down to the beginning of the eighteenth century; and even princesses of the reigning family, who

were afterward queens of England, attended the bear and bull-baits in Southwark a couple of centuries before. The Anglo-Saxons were inveterate gamblers—a passion they inherited from their German ancestors. Chess was universal amongst them. It was always played for money, or money's worth; and, being an irascible people, they frequently lost their temper when they lost their bets, and brought the contest to a close by flinging the board at each other's heads. Dice was common in all classes. Tables, in several forms, was one of the popular games, derived originally, in all likelihood, from the Romans, and identical in principle with backgammon, the tick-tack of the English, and the tric-trac of the French. To the middle ages belong numerous games which still supply recreation to many an English circle. The shovel-board of the Elizabethan cycle has its representative in its more complex and ingenious successor, billiards. Dames, or ladies, familiar to the age of chivalry, come down to us in the shape of draughts. Several of the round games, and in-door pastimes that flourished some hundreds of years ago, are favorite resources to the present day in country houses; such, for example, as blindman's buff, hot cockles, and frog-in-the-middle. The list might be indefinitely enlarged. Questions and commands, I am a Spanish merchant, a round game said to have been invented by Queen Elizabeth, drawing characters, and endless varieties of forfeits, are amongst the trivial entertainments in which the modern drawing-room takes almost as much delight as the medieval hall.

Upon the whole the Anglo-Saxons were a stately and sedate people. They selected the best situations for their houses, on eminences commanding a complete survey of the surrounding country, and well placed for security. And they built them with a main view to the hospitalities which the exigencies of their social intercourse rendered almost the principal business of their lives. The hall was the one great apartment, to which every other, including even the ladies' bower, or chamber, were inferior. Here the chieftain regaled his followers, received his visitors, and kept open house. No person claiming hospitality was refused admittance; but the custom was regulated by a strict code of forms and cere-

monies. Strangers made it a point to arrive when the host was "at meat," and calling for the porter, announced themselves as travelers who desired leave to eat with the family. The request being duly conveyed, and leave granted, the horses, servants, and luggage of the travelers were immediately provided for, and all visitors, divesting themselves, according to the invariable usage, of their hoods and gloves at the door of the hall, as they had previously deposited their weapons at the outer gate, entered the banquetting-room, and stood at the lower end till a retainer was ordered to conduct them to seats at the table. The same etiquette was observed upon the arrival of guests who had been specially invited, with this difference, that if the host was a person of inferior rank, he went out to the gate to meet them.

The halls of rich proprietors were hung with cloths, but none appeared to have been supplied with any more costly articles of furniture than a table, consisting of naked boards placed upon trestles, so that it might be taken to pieces and removed when dinner was over, and rude benches, which the luxurious amongst the wealthy chiefs covered with cushions. The table was called the board, because it was literally a board; from whence descends to us the compound phrase of "board and lodging," which incloses the whole rite of hospitality exercised by our ancestors.

When dinner was ended, the table was taken away, and the party sat round on the benches to carouse, make speeches, and tell stories. Then came the harpers and mountebanks to sing, play, dance, and tumble before the company. Amongst some curious medieval illuminations illustrative of these usages, we find one which professes to represent Herodias dancing before her father, King Herod, at a feast given in celebration of his birthday. The lady's performances on this remarkably jovial occasion closely resemble the athletic exercises of our street beggar-boys, for she is shown first standing on her hands with her feet in the air, and then flinging a sort of circular sommersault. These singular feats are repeated in two illuminations; but it is just possible that the artist may have drawn upon imagination for his gymnastics, as he has certainly done for his history, in metamorphosing the matron Herodias into a dancing-girl.

Traveling in the days of the Anglo-Saxons and the Anglo-Normans, and even still later, was a serious undertaking. Chariots were known, but they were known only to very great people, and were used only on state occasions. The highest luxury in the way of a traveling vehicle was little better than a modern market-cart, and was not half so comfortably hung as the rudest specimens of that class of locomotive to be seen any morning at early dawn, piled up symmetrically with a load of vegetables in Covent Garden. The introduction of side-saddles into England has been ascribed to the queen of Richard II.; but it is obvious from representations of the time, that they were used by Anglo-Saxon ladies. Almost every body who went a journey, and could afford it, traveled on horseback; those who could not, trudged on foot. Except where the Romans left memorials of their civilization, at wide intervals, the roads were mere tracks, or rough bridle-paths. Nor were the difficulties of movement across country the only hazard the traveler had to encounter. The open interior, thinly populated, and inadequately protected, was overrun with robbers. The traveler who journeyed alone was exposed to a double danger. If he escaped the banditti who infested the rural districts, he was tolerably sure to fall into the hands of the guardians of property and the peace, who always looked upon the solitary wayfarer with distrust. The appearance of keeping aloof from observation, for which a man might have a perfectly valid reason, exposed him to the worst suspicions; and if he ventured through ignorance, or any other cause, to diverge from the beaten route, or what we should now call the high-road, without giving public notice of his whereabouts by shouting or blowing a horn, he was liable to be apprehended as a thief, although there might not be a tittle of evidence against him, and put to death, unless his friends came forward to rescue him. The local authorities exercised a complete despotism in these matters. Their discretion was law in an age when rights of all kinds were at the mercy of the strong hand.

In consequence of the dangerous state of the country, people who had journeys to make traveled in large troops, like Chaucer's pilgrims, and waited to make

up a sufficient company for mutual protection before they started. A journey, therefore, from one part of the kingdom to another was a serious business, and required elaborate preparations. Those who went on foot had generally amongst them a mule to carry luggage, and occasionally to relieve the fatigues of the women and children. Upon the mule's back every thing was packed; provisions, change of clothes, materials for striking lights and making fires, for constructing a tent, for a temporary bed, and for cooking, together with knives and dishes, and portable valuables, which, for greater security, travelers usually carried about with them in boxes, or portmanteaus—articles which we frequently hear of in Chaucer's time.

Inns were "few and far between." But there was a skeleton substitute for them, in the shape of empty refuges, or sheds, such as we see on the bleak route of the Simplon and elsewhere in the passes of the Alps. These refuges, consisting merely of wall and roof, afforded nothing more than a temporary shelter against the weather; and Mr. Wright conjectures that they may probably have been the sites of the numerous spots now called "Cold-Harbor." The same conjecture will apply to the name of "Windy-Harbor," which attaches to many places in England and Ireland. The few inns that existed yielded little comfort to travelers of condition. With rare exceptions, they were no better than common ale-stakes, that is to say, road-side ale-houses, distinguished by a stake, or pole running out horizontally from the roof, or over the door, with a sign, or cluster of leaves, sometimes hanging from it. The want of necessary and suitable accommodation for travelers was the primary cause of the hospitality which was practiced generally throughout the country. It may be doubted, however, whether that excellent household virtue would have flourished so universally, or have borne such plentiful fruit, if it had not been in some degree forced by other influences. The clergy were the greatest travelers in England. Some of the orders were itinerant, and perpetually in motion; and of the others there were none that had not occasion at times to make pilgrimages, or perform visitations, to distant places. The whole power of the Church was consequently brought to

bear upon the maintenance of an usage from which the priesthood profited more largely than any other class in the community. They preached up hospitality as an imperative duty and a religious obligation; and even went so far as to denounce ecclesiastical censures against the head of a house who refused a lodging to a traveler. It is not, therefore, very surprising that under such a pressure we should find gates thrown open, and boards spread freely, for the reception of wayfarers. The fact dispels one of the day-dreams of history. The hospitality which is not wholly voluntary loses nearly all its grace.

The only houses of entertainment that made any approach to our modern notions of an inn, were to be found chiefly in the towns, where lodgings were also to be had by those who preferred comparative retirement, and, perhaps, economy, to the bustle and expenditure of the public caravansary. The keepers of the former establishments were called *hostelers*, and of the latter *herbergeors*, or persons who harbored strangers. There is ample reason to believe that these two classes have undergone little alteration, either in the way of deterioration or improvement, from that time—say some six or seven hundred years ago—to the present. The art of cheating at inns and lodging-houses is as old as the institutions themselves, and appears to have been cultivated with quite as much adroitness and success in the days of King Stephen as in our own. Tricks upon travelers are not the exclusive property of advanced civilization. Not alone were liquors drugged and adulterated, and stale cookery served up—just as the passenger by train or coach finds it now in places where such frauds may be attempted with comparative impunity—but the grossest impositions were practiced in the way of exorbitant charges; guests who were known to be people of substance were encouraged in running up heavy bills, and every species of advantage was taken of their ignorance and defenselessness. The lodging-house keepers were even worse than the innkeepers. They set about their frauds with a show of friendliness that was well calculated to entrap the unwary. They had their touters, to interrupt and solicit customers immediately upon their arrival, and, above all things, to put them on their guard against the rogueries of

the *hostelers*. One of the ingenious tricks of these artful dodgers was, to ascertain in conversation from what part of the country the travelers came, and then, pretending to have come from the same place themselves, to take the strangers under their special protection, showing them the way through the town, and recommending them to lodgings where, in one sense at least, they would be well taken care of.

Looking a little farther back into the Pagan period, we find that the social institutions of the country were built on an extremely loose foundation. The marriage laws and usages of the Anglo-Saxons were so brittle that they afforded no security to either party, before the introduction of Christianity; and, it may be added, that they retained much of their licentiousness for a long time afterward. The marriage ceremony, so far as there was one, might be described as an ordinary agreement entered into between the high contracting lover on the one hand, and the friends of the lady on the other. The only stipulations, or conditions, connected with it that had any binding force, related to such chattels, money, or other property as might be involved in the arrangement. The business part being disposed of, then followed the feasting common on such occasions to most barbarous communities, and not uncommon in more highly refined stages of society; and the wedded pair went off upon their tour, to be royally fleeced by innkeepers and lodging-house cormorants, and to flaunt their happiness in the face of the public, by open entertainments wherever they went. The union which was thus completed implied none of the obligations exacted by Christianity. The gentleman was not required to cherish and protect the lady, nor the lady to love, honor, and obey the gentleman. It was a union for mutual convenience and satisfaction; sometimes inspired by a romantic passion, and sometimes with so little mutual knowledge beforehand, that, so far as happiness was concerned, it was a leap in the dark. The result, one way or the other, was a matter of blind chance; and the institution was logically adapted to meet any exigency that might arise out of so precarious a state of things. Where there were no duties, there could be no responsibility; and it was consistent with the

nature of the engagement that the marriage which hung so loosely might be easily thrown off. Both parties were at liberty to follow the bent of their own inclinations, and if they disagreed, they were free to separate, the lady's friends interfering, as before, merely to look after the settlements. The whole contract, from beginning to end, had at least the advantages of cheapness and simplicity. There was no necessity for the intervention of a Sir Cresswell Cresswell in matrimonial complications. All questions of that kind were quietly settled amongst the principals and their relatives, according to a code of domestic morals which, however shocking it may appear to us, was perfectly satisfactory to them. A still more singular custom is said to have prevailed in Ireland, where the lady was taken home to the house of her suitor for a year's trial, and if, at the end of that time, they found that they did not suit each other, she was restored to her family; nor did this episode in her history in the slightest degree damage her reputation or her prospects in life.

Although marriage was not binding against the wishes of the husband and wife, it was held sacred against invasion from without. Upon this point the Anglo-Saxon laws were precise and severe. Not only was the wife's paramour mulcted in pecuniary damages, the penalty being fixed by law, without having recourse to the assessment of a jury, but he was saddled with the additional responsibility of being compelled to provide the bereaved husband with another wife, and to pay all the expenses of the wedding. It is clear, also, that these laws, out of a rude sense of natural equity, recognized that class of cases which is known to us under the title of Breach of Promise. The Anglo-Saxons bought their wives: that is to say, they entered into a bargain with the relatives of the bride, which virtually constituted the marriage contract; and if they failed to fulfill the contract, or, in other words, to complete the marriage, they were liable by law to the payment of the sum for which they had stipulated, together with a further amount by way of compensation. Women before marriage were otherwise protected by stringent regulations, which compelled the early British Lovelace who, to use the words of one of Alfred's laws,

"deceived an unbetrothed woman," to "pay for her, and have her afterward to wife."

Domestic life under the Normans made a sensible advance in the way of in-door enjoyment: houses were more substantially and commodiously built, the resources of the *cuisine* were more skillfully cultivated, and the homes of the gentry began to develop the features of those comforts and luxuries which modern art has since brought somewhat nearer to perfection. No doubt every thing was still rough and rude, but the first conceptions were evidently there. The private dinner, contradistinguished from the dinner of form and etiquette, is a Norman introduction. Dinner was a public ceremony down to the close of the Anglo-Saxon rule. Banquets were invariably conducted in the one large, open, indiscriminate apartment. But the Normans knew the pleasure of a little occasional retirement, and of small entertainments, when they could enjoy themselves without being gazed at like wild beasts in a cage at feeding-time. Formerly the doors of the capacious hall were besieged by a hungry rabble of beggars and idlers, who watched the dishes as they were carried by the servants to and from the table, and often had the audacity to lay violent hands upon them. The Normans protected themselves against these swarms of clamorous vagrants by appointing a legion of door-keepers, armed with staves, to keep order at the entrance, and by building, for the first time in England, a room over the hall, where they could withdraw from the bustle, and dine in tranquillity. This room was reached, after the Swiss manner, by a staircase from without, and guarded by ushers below; and it appears to have been the earliest example amongst us of a floor raised above the ground-floor. When population was sparse, and land of comparatively little value, people spread out their buildings on the flat; but as population increased, and the surface became costly, space had to be obtained by other expedients. Necessity is the mother of invention. Driven to seek the means of dining in peace out of the roar of a turbulent publicity, the Normans conceived the grand idea of building a dining-room up a flight of stairs; and one of the most humorous cuts in Mr. Wright's volume represents a carousal in an attic of this novel descrip-

tion, taken from the Bayeux tapestry. Subsequent ages improved upon the precedent; and as house-room became more and more precious on the land, they built higher and higher into the air, amongst the stars and birds.

Progress in the art of cookery is generally considered significant of general progress in other and more important branches of civilization; and in this department the Normans were far in advance of their predecessors. When Duke William came to England, his forethought was not confined to warlike preparations. He took care that, however he might fare in the field, he should never be at a loss for a good dinner. He brought over his kitchen with him. This was in itself an evidence of high training in matters of taste. But it is only fair to observe, that if his artists transcended the Saxon cooks, they had an important advantage over them in the choice of materials which were seldom found upon Saxon tables, such as beef, mutton, veal, and pork. They appear also to have been familiar with the use of stoves and hot plates, prophetic of those more scientific structures which the illustrious Soyer plumed himself upon the glory of having established in the kitchen of the Reform Club; and there is reason to believe that they understood how to make pasties and pies, and other still more recondite and delectable dishes. At all events, we know that they could produce combinations which had the merit of being savory and palatable, and that the use of foreign flavors, with judgment and variety, was one of the resources which, all but unknown to the simpler Saxon, were at the command of the accomplished Norman. With the latter, as with the more enlightened gastronomic authorities of a later day, garlic was an indispensable agent, and we can only hope that he used it under proper restraints. We hear of roast hen seasoned in garlic sauce, and of fish cooked in wine and water, and served up with an elaborate and luxurious sauce, composed of parsley, sage, cost, ditany, wild thyme, and garlic, seasoned with pepper and salt; and the most robust gourmand could not desire a more energetic sample of culinary science than a roast goose served up with garlic sauce mixed with wine, or the green juice of grapes or crabs. The Normans evidently had a natural zest for good living; and we are mistaken if we do not gather from some

of the old illuminations and tapestries, that they were particular about having their meats put smoking upon the table, and that they even carried their sense of comfort (which is really an old Norman word) so far, as to indulge in the luxury of covers for their dishes. Yet, in the midst of these incontestable evidences of culture, they ate their meat with their fingers. They had not yet arrived at the decent convenience of a fork. For illustrations, the reader may be referred to Chaucer, especially to the description of the prioress, who was distinguished by the neatness with which she used her fingers in eating.

The distinction drawn by William of Malmesbury between the Anglo-Saxons and the Normans—that the former indulged in great feasts, and lived in mean houses, while the later built magnificent mansions, and ate moderately—is doubtless true. The Anglo-Saxons were enormous feeders; and the Normans consulted quality and relish rather than quantity. But the means of forming an accurate comparison do not exist, for it was not until cookery became resolved into an art that any details of its processes were recorded or preserved. It was late in the fourteenth century before culinary maxims came to be written, and receipts handed over in house-books or other depositories of domestic secrets. Mr. Wright has collected some bills of fare of that period, from which we learn that the dinner generally consisted of three courses, and that boar's head larded, beef and mutton, swan, pheasant, chickens, rabbits, teals, woodcocks, and snipes, independently of bruce, (a horrible mixture of pig's chitterlings, minced onions, white of eggs, and bread, out of which a fearful soup was distilled,) pork, mutton, and two or three other dishes entered into the plan of a single entertainment. At this time, the *cui sine* was obviously an object of paramount consideration; yet it is remarkable that while the Normans were making such strides in the science of dinner, their way of dining presented a humiliating contrast to the refinement of their cookery. Civilization was too busy among the stewpans and skillets to look after the manners of the people; and the table habits of the Normans were even coarser, all thing considered, than those of the Anglo-Saxons, whose stately formalities and cumbersome ceremonials imparted something of

an air of barbaric elevation to their usages. The Normans had all the rudeness of the previous age, without its earnestness. Their rules for behavior at table indicate plainly enough, in the suggestive shape of a long catalogue of prohibitions, the uncouth condition of society, in spite of its superficial gloss, down to the fourteenth and fifteenth centuries. Forks had not yet come into use, and nobody having hit upon the expedient of chop-sticks, meat was conveyed to the mouth by the fingers. This was unavoidable; and in order to make sure, as far as might be, of the cleanliness of the hand engaged in this delicate office, it was one of the maxims of good breeding that the same hand should never perform the function which is now consigned to the pocket-handkerchief—an article unknown in those times. The fact of laying an interdict on one hand, implies, of course, the employment of the other. The American custom of expectoration prevailed so extensively amongst the Normans, that it was necessary to protect the board at which they sat from pollution by stringent regulations. Fortunately, in most cases, the floor which received the contents of water-basins, the dregs of wine-glasses, and other refuse, was slightly protected by a layer of rushes. The benches and seats, however, were exposed to all passing chances; and in an old French metrical code of politeness, quoted by Mr. Wright, people are prudentially advised to examine the seats before they sit down upon them. Some of the minor directions testify at once to the raw state of manners, and to the dawn of coming improvements. For example, you were forbidden to pick your teeth with your knife, or to offer the remains of your dish to another person, or to dip your meat in the salt-cellar, or to return food from your mouth to your plate; and symptoms of the more artificial modes that not long afterward came into vogue, may be detected in a code of instructions which warns you against the vulgarity of eating much cheese, or taking more than two or three nuts at a time upon your plate, or betraying fidgetiness at dinner, by such boorish tricks as playing with your knife, or twisting your napkin into knots, and which, above all things, admonishes you against getting intoxicated before dinner is over.

When we speak of dinners in these times, we must be understood to speak of

a meal which has no equivalent in the present day. Popular habits are so entirely altered that the same things can not be recognized by the same names; and we must enter into some details to render clear to the modern reader the habits of his ancestors in reference to the rites of the table.

They had two substantial meals in the day, dinner and supper, between which, there was an interval of eight hours. They were early risers, and began and finished their labor and their pleasures with the sun. In the Carolingian romances everybody is up at daybreak, and in most of the romances every body is in bed soon after supper, making no ceremony about it, but beginning to yawn and gape the moment they were sleepy, and separating at once for bed, after the fashion of the king and his court, in Chaucer's "Squyere's Tale." There is an old proverb which fixes the hours for the different meals:

"Lever à six, disner à dix,
Souper à six, coucher à dix."

But there is an older monastic triplet, still familiarly remembered, which throws back all these operations an hour earlier:

"Lever à cinq, diner à neuf,
Souper à cinq, coucher à neuf,
Fait vivre d'ans nonante et neuf."

Dinner at nine (which prevailed for centuries before people became so lazy in their habits as to postpone the hour of *underne*, or *prandium*, to ten,) and supper at five, supply a land-mark of a day passed chiefly in athletic sports, chess, dice, eating, drinking, and praying. The ten o'clock dinner continued for a long period, and even so lately as the sixteenth century the general hour for dinner was eleven, as it is still in the northern parts of Germany.

Some obscurities which appear in Mr. Wright's work respecting the hours of meals, may here be usefully cleared up. At page one hundred and fifty-five, Mr. Wright, quoting the following lines, spoken by the Monk in Chaucer's *Schipmanne's Tale*:

"And let us dyne as soon as ye may,
For by my chilindre it is prime of day,"

observes—"In the time of Chaucer, the

hour of *prime* appears to have been the usual dinner hour, which, perhaps, meant nine o'clock." At page two hundred and forty-eight, he says, that "In Chaucer's *Squyere's Tale*, the king's guests, after great feasting and carousing at night, sleep till 'prime large' in the morning—that is, till six o'clock—which is spoken of in a manner which evidently intimates that they had considerably overslept themselves." This latter interpretation of the word *prime* is the correct one.

The divisions of the ecclesiastical day, which were every where followed by Chaucer, and for each of which particular offices of devotion were appointed, consisted of *matins*, *prime*, *terce*, *sext*, *none*, and *vespers*. There was another service, called *compline*, or *completorium*, to which no particular hour was assigned, it being directed to be observed just before retiring to rest. *Matins* began at midnight; *prime* was six o'clock in the morning; *terce*, nine; *sext*, twelve; *none*, three; and *vespers*, six. Each of these terms covered the whole of the preceding interval; ignorance of which circumstance has, no doubt, occasioned much of the confusion that has arisen on this subject. Thus, as soon as *prime* was passed, the time would be reckoned as so much before *terce*; and from mid-day, or *terce*, it would be considered noon, or *none*, up to three o'clock. We have a curious illustration of this in the *Shepherd's Calendar*, where twelve o'clock is called noon, and three o'clock high noon. In the same way we frequently find in Chaucer, and other writers, the phrase "large prime," which is analogous to "full noon," and means *prime* arrived, or nearly so—at its full development—that is, six o'clock, or very close upon it.

In the lines quoted by Mr. Wright, "prime of day" is to be understood either in a figurative sense, which derives some color or probability from the introduction of the "day"—or literally as six o'clock. The latter interpretation is in some degree supported by the fact that on that morning the monk had risen earlier than usual, and might, therefore, be supposed to be ready for dinner before the regular hour. It is obvious that the regular dinner-hour had not then arrived, for some time elapses before the merchant and his wife go to dinner, the lady in the mean while calling him out of his

counting-house, and, after some talk together, going with him to hear mass, as was customary before breaking the fast.

It must be admitted, however, that it is not always easy to determine with certainty the meaning intended to be conveyed by the word *prime*, as it is employed by medieval writers. Even Chaucer, who is generally exact in his language, fluctuates occasionally between the poetical and the canonical uses of the word. We can keep to its strict definition only where the word is used in connection that will bear it. We constantly hear of the *prime* without reference to any particular hour, conveying sometimes a loose indication of an early hour of the day, and sometimes of the day full-blown. People are generally described as setting out to travel long before *prime*. In the *Canterbury Tales* the pilgrims set out in the spring of the morning, that is, about or soon after dawn, and it is past *prime* when they arrive at Deptford, which means past six, the hour of *prime*. Popularly, and poetically, *prime* means the dawn or spring of the day, as, in a similar sense, the *prime* time of the year

is spring, the French *printemps*. In adopting either interpretation, the reader of medieval literature must be governed entirely by the context.

Mr. Wright says that the hour of breakfast was very uncertain. We suspect that it is still more uncertain whether there was such a meal as breakfast at all. We have no evidence of any repast of that nature; and as it was the universal custom not to taste food till after mass had been heard, or other offices of devotion performed, and some indispensable household drudgery discharged, the presumption is that the first time of eating was the nine o'clock dinner. Beside, the preparation for dinner must have fully occupied all the available time on hand. There was not room for a preliminary entertainment; and the utmost we can suppose, in the way of refreshment before dinner, was some slight flavor, like the early cup of coffee of the French. But even this is mere conjecture, and in any case the term breakfast is wholly inapplicable.

[TO BE CONTINUED.]

From Story of Walfs and Strays.

T H E W A T E R - D R I N K E R ' S S O N G .

I DRINK with a goodly company—
With the sun that dips his beams,
And quaffs in loving revelry
The pure and sparkling streams;
The laughing streams
That catch his beams,
To flash them back in light;
The glittering streams
Whose ripple gleams
Like liquid diamonds bright.

I drink with a blooming company—
With flowers of every hue,
Whose fragrant lips take daily sips
Of sweet and odorous dew;
Of morning dew
So fresh and new,
That tenderly distills
The balmy dew,
So pure and true,
That every petal fills.

I drink with a merry company—
With every bird that sings,
Carolling free a strain of glee,
As he waves his airy wings—
Wild soaring wings—
And upward springs
Filling the air with songs;
The woodland rings,
And echo flings
The warbling notes along.

I drink with a noble company—
With all the stately trees
That spreads their leafy shade abroad,
And flutter in the breeze;
The playful breeze
That loves to please
My comrades great and small;
I'll drink at ease
Pure draughts with these—
They're water-drinkers all.

From the Popular Science Review.

ARTIFICIAL PRECIOUS STONES.

BY W. G. HOWGRAVE.

SINCE Sir Humphry Davy first discovered the diamond to be pure carbon, un-mixed with any other substance, various attempts have been made by chemists to produce it, and other precious stones, by artificial means; and it may not be uninteresting to glance at some of these essays, and to see how far they have been attended with success.

But little progress has as yet been made toward the discovery of the means of imitating the natural diamond, men of science having hitherto been baffled in all their efforts to find a substance capable of dissolving carbon, the chief constituent of that crystal; and indeed, until Despretz succeeded, by the agency of electricity, in actually producing minute diamonds, the manufacture of this precious stone seemed as chimerical as that of the philosopher's stone, so perseveringly sought after by the ancient alchemists. Despretz found, that by passing a powerful galvanic current through a point of charcoal over which a platinum wire was suspended, the charcoal was volatilized and deposited on the wire in the form of minute crystals, which, on examination under the microscope, proved to be true diamonds. Since the discovery, no further advance has been made toward the solution of this interesting problem.

The search after the diamond having proved so unsatisfactory in its results, attention was directed to a class of stones almost as simple in their composition, going under the generic name of *corundum*. In order to understand the experiments that were made, and the difficulties attending them, it is necessary that a clear idea should be obtained of the composition and distinctive characteristics of the stones belonging to this class. I will, therefore, in as few words as possible, give a description of their nature and properties.

The ruby, sapphire, oriental topaz, and several other precious stones, are all merely colored varieties of a mineral called corundum, or white sapphire, the composition of which was stated by Chenevix to be alumina, mixed with a small proportion of silica and oxide of iron. Dr. Thomas Muir and others proved, however, that it was pure alumina, the silica found by Chenevix being abraded from the substance in which the stones were imbedded. All the varieties of corundum crystallize in six-sided prisms, and have the curious property of double refraction; that is, causing every thing that is looked at through them to appear double. Alumina, the oxyd of the metal aluminium, now coming into such frequent use in the manufacture of articles of jewelry, etc., was, until the invention of the oxyhydrogen blowpipe, supposed to be, like carbon, infusible by any degree of heat. In 1837, however, M. Gaudin, who had given much attention to the effects produced by this then newly-invented means of generating heat on various metallic oxyds formerly thought unsusceptible of fusion, attempted with some success to convert, by its aid, the apparently infusible alumina into crystals similar to the ruby and the other oriental stones. He proceeded by submitting to the action of the blowpipe a mixture of alum (sulphate of alumina and of potash) and chromate of potash, which he placed in a cavity of animal charcoal. In this manner he obtained small portions of melted alumina, having the color and hardness of the ruby, but which could be easily distinguished from it by their imperfect transparence, and by their not possessing the property of double refraction. All subsequent attempts to obtain crystals of alumina, colored like the precious oriental stones, have failed in a similar manner; and this has been accounted for by the discovery only lately that

the color of these stones is not due to a metallic oxyd, as had been always supposed, but to the presence of some organic coloring matter. The application of this discovery may bring us nearer than we have ever yet been to the invention of a mode of producing artificially these rare gems.

The next step in this direction was made by the manager of a manufactory of Sevres porcelain, named Ebelmen, who, ten years after M. Gaudin's experiments, found out a way of obtaining crystals of corundum, but of such minute proportions as to be of no practical use. He first discovered that boracic acid, which had been hitherto supposed to be absolutely fixed, could be evaporated by the intense heat of the porcelain ovens; upon this it occurred to him that by dissolving alumina in boracic acid, which could be done by heat, and then evaporating the liquid, it would be possible to obtain crystals resembling the oriental stones; and it was found, in fact, that by exposing a platinum capsule containing such a mixture to the heat of the porcelain oven for a considerable time, the boracic acid was evaporated, and a number of little shining crystals of alumina having the properties and appearance of small precious stones were left adhering to the capsule, but adhering so tightly that it was found impossible to detach them entire.

One other experiment is worthy of notice before proceeding to the only one which had any practical result; it is that of M. de Senarmont, who obtained similar microscopic crystals by exposing hydrate of alumina, or alumina combined with water, to a great heat, which caused the water to evaporate, and left the crystals at the bottom of the glass tubes in which the experiment was conducted.

The perseverance of M. Gaudin, who appears never to have abandoned the idea of manufacturing precious stones, enabled him, in 1857, to present to the Academy of Sciences several white sapphires produced by a very simple process, and of sufficient size to be used as jewels in watches.

The following is the mode of procedure by which M. Gaudin succeeded in producing these crystals:

In a crucible lined with animal charcoal are placed equal parts of alum and sulphate of potash, previously calcined to expel the water. With this mixture the

crucible is half filled; it is then filled up to the top with animal charcoal, the lid is put on and cemented in its place with clay, and it is then exposed in a furnace, and kept at a white heat for a quarter of an hour. The heat and the reducing power of the charcoal cause the formation of sulphuret of potassium, which fuses and dissolves the alumina; the continued action of the heat partly evaporates this sulphuret of potassium, and the alumina separates in the form of little crystals. On opening the crucible, a black mass, sparkling with brilliant points, is found in it, which consists of sulphuret of potassium mixed with crystals of alumina. This mass is afterward placed in diluted nitro-hydrochloric acid, which dissolves the sulphuret, and lets fall the crystals of alumina to the bottom of the vessel, where they appear as a coarse powder, and seen through a microscope, have an exact resemblance in form to the natural precious stones. By using a larger crucible, and exposing it to the action of the fire for a longer period, M. Gaudin produced crystals of much greater dimensions, which, upon examination, proved to be true white sapphires, and were even superior in hardness to the rubies ordinarily used for the jeweling of watches. He endeavored to produce colored crystals by the addition of metallic oxyds, but found that these were invariably reduced into metals by the action of the charcoal. The successful result of this experiment encourages us to hope that at a future period M. Gaudin, or some one else possessed of his indomitable perseverance, may discover some substance capable of dissolving carbon in a similar manner to that in which sulphuret of potassium has been found to dissolve alumina, by which the problem of the artificial production of that beautiful and valuable stone, the diamond, will at length be solved.

Although not belonging strictly to the subject of the artificial production of precious stones, it will not, perhaps, be thought inappropriate to notice some experiments undertaken by Messrs. Deville and Wohler, which resulted in the discovery of a crystal strongly resembling the diamond in its hardness and properties, although of a different composition. This crystal is that of a substance called boron, which attracted the attention of Messrs. Deville and Wohler on account of its resemblance to carbon. It occurred to

these gentlemen that a substance having such a great similarity to the element of which the diamond is composed would, in all probability, if crystallized, have some characteristics in common with that gem. They, therefore, set to work to find some process which would enable them to reduce it to the crystalline form.

Boron is only found in nature in combination with oxygen, as boracic acid, and in union with soda as borax; and it had, up to this time, been obtained from these combinations only in the form of a brownish-green powder, insoluble in water, possessing many of the properties of carbon. It was reserved for the two chemists whose names are given above to produce it in a form hitherto unknown, by the following process:

In a crucible lined with animal charcoal are placed eighty grains of aluminium and one hundred grains of boracic acid; this crucible is then exposed for five hours to an intense heat, which causes a portion of the boracic acid to part with its oxygen to the aluminium. After it has been taken from the furnace and allowed to cool, it is found to contain a sort of glass composed of the remainder of the boracic acid and of the alumina formed during the process of heating, and underneath this a gray metallic mass sparkling with crystals. This mass consists merely of boron imbedded in aluminium. To separate the boron, the mass is plunged into

boiling caustic soda, which dissolves the aluminium, and is afterward treated with hydrochloric acid, to remove all traces of iron, and with a mixture of nitrate and hydrofluoric acids, to get rid of any silicon that may have been left by the soda. After all these processes have been gone through, the boron remains alone.

An examination of the boron obtained in this way shows what a great analogy exists between it and carbon, which, as every one knows, is found in three forms: uncrystallized in charcoal; semi-crystallized in plumbago; and crystallized in the diamond. Similarly the boron resulting from the above experiment is found to exist in three forms, namely, in black flakes almost as hard as the diamond; in brilliant prismatic crystals less hard than the former variety; and in small, beautifully-formed reddish crystals, having a great resemblance to the diamond. These crystals are as hard as the diamond itself, and may, in the course of time, should their manufacture be brought to perfection, supersede that stone in many of its uses, such as cutting and polishing precious stones, forming jewels in watches, etc.; and thus, although from their being unknown in nature they can not be considered precious stones, the discovery of these boron diamonds may prove of more practical value than all the attempts at the artificial production of the real diamond.

From Chambers's Journal.

THE PYTHON AND PYTHONESS.

UNLESS the historians of ancient Rome are guilty of gross Munchausenism, the serpent race have greatly degenerated since one of their tribe staid the march of the legions of Regulus on the banks of the Bagrada, taxing all the resources of the general, and all the courage of his troops, and remaining, spite of defeat and death, master of the field of battle, by poisoning the waters with its blood, and

polluting the air with its decaying flesh. This hero is said to have measured a hundred and twenty feet in length, and was evidently allied to the elephant-crushing reptiles that served our old friend Sinbad's feathered giant for a meal. Compared to such monsters, the pythons of modern times are insignificant creatures, and yet, as foes, they are by no means to be despised. One of them was nearly

bringing the destructive career of the mighty hunter, Gordon Cumming, to an abrupt conclusion. While tracking game in Southern Africa, that famous sportsman saw an old rock-snake gliding beneath a mass of rocks, and was seized with a desire to add its skin to his wealth of trophies, but was somewhat puzzled how to obtain it without spoiling its beauty. After a moment's consideration, he cut a tough stick, about eight feet long, and advanced toward his wished-for prize. Seizing it by the tail, he pulled away with a will, but the harder he pulled, the closer the python drew his folds together, and he was fain to call his African follower to his assistance. The two plied their utmost strength, and tugged so vigorously, that the serpent, unable any longer to endure such impertinence, suddenly relaxed its coils, faced its foes, and sprang at them open-mouthed, its sharp teeth just missing the naked legs of the bold Scotchman. Taken aback by this unexpected attack, the assailants let go their hold, and the python at once made for a place of safety; to reach this, it had to cross a muddy pool, and, in attempting the passage, was brought to a stand by a shower of blows, and belabored, till it ceased to show any signs of life. Its conqueror then slung it to a tree, and appropriated its skin, an operation under which the serpent seemed to revive, and caused considerable trouble to its astonished flayers. The skin measured fourteen feet; but this was by no means an extraordinary specimen. The skeleton of a python in the Museum of the Royal College of Surgeons exceeds it by two feet and a half; a reticulated python, (the anaconda of Eastern romance,) presented to Sir Emerson Tennent in Ceylon, measured seventeen feet, and a much larger one crossed his path near Pucivala. It is said sometimes to attain a length of upward of thirty feet.

This species preys upon hog-deer, and Boië says the Asiatic python only attacks the smaller quadrupeds; but instances are not wanting of its assaulting even men upon favorable opportunities. One of the crew of a Malay proa, that anchored off the Isle of Celebes, went ashore to look for betel-nuts. Tired out with his search, he lay down to sleep at the foot of a large tree. The sailors in the proa were suddenly startled by a succession of screams, and landed in all haste, to find their com-

rade in the embraces of a huge python. The serpent soon fell a victim to their united attack, but their unlucky shipmate was quite dead, his head, neck, breast, and thighs being completely crushed by the constricting folds, while his wrist bore the marks of the teeth of his murderer. Looking upon one of these reptiles, it seems almost incredible that the python should be able to swallow the bulky victims he loves to prey upon; but nature has provided him with such an elastic frame, and such extraordinary digestive powers, that it is hardly necessary to believe, with the Cingalese, that he assists the process of deglutition by drawing himself through a narrow aperture between two trees. Our readers will be better able to understand the python's mode of operations by the following description of one taking his meal at the Zoological Gardens, by a writer in the *Quarterly Review*. A rabbit, all unwitting of his danger, is placed in the den by the keeper, and amuses himself by examining his new domicile, without troubling himself about the regular tenant. "Silently the rock-snake glides over the stones, uncurling his huge folds, which, like a cable, seem to move as though by some unseen agency from without, looks for an instant upon his unconscious victim, and the next has twisted him with his cruel jaws. His constricting folds are twisted as swiftly as a whip-lash round his shrieking prey, and for ten minutes more the snake lies still, maintaining his mortal knot until his prey is dead, when, seizing him by the ears, he draws him through his vice-like grasp, crushing every bone, and elongating the body, preparatory to devouring it. The boa and the rock-snake always swallow their prey head-foremost. How is that neck and delicate head to make room for that bulky rabbit? thinks the spectator. Presently he sees the jaws gape, and slowly the reptile draws himself over, rather than swallows, the prey, as you draw a stocking upon your leg. The huge lump descends lower and lower beneath the speckled scales, which seem to stare with distension, and the monster coils himself once more to digest his meal in quiet." Such a dinner will satisfy him for a long time; a goat, that occupied nearly two hours and a half in the above process, served a great python on board H.M.S. *Alceste* for a month. Glutton as he is,

the python, like most reptiles, is capable of bearing abstinence. Mr. Crisp dissected one that had fasted ten months without any apparent diminution in size, and another belonging to the Zoölogical Society lived for twenty-two months without tasting food.

Despite its bulk, the python does not lack activity. Sir E. Belcher, when commanding in the Philippine Archipelago, had one presented to him which measured sixteen feet in length. One day, just as it had drawn its folds round an unfortunate chicken, a tender-hearted looker-on entreated that the fowl's life might be spared. The ship's surgeon introduced his arm in order to release the bird, but immediately that he did so, the incensed reptile threw back his head, unwound his coils, and darting at the intruder, seized the ball of his thumb with his sharp teeth, and the rash doctor found it no easy task to extricate himself from their hold. So, with a sudden dash from its lair in the tall tropical vegetation, the python strikes down its prey ere it presses the breath of life out with its deadly folds. Coiled round some forest giant, it lies in wait above the waters of its native region, ready to dart down upon any animal seeking to assuage its thirst. In the better known species, the rudimentary limbs, for which the python is remarkable, are very small; but Mr. Russell, in his work on Indian serpents, mentions a python furnished with spurs as large as those of a partridge, which served it as weapons of offense.

The python is found in Africa, New-Holland, Ceylon, Borneo, Hindustan, and various parts of the Asiatic continent, and is distinguished from its American relative, the boa, by its inter-maxillary teeth, and having the scales beneath the tail divided into two rows, or composed of double instead of single plates. The Javan Ular-sawa, or serpent of the rice-fields, one of the largest, if not *the* largest of its kind, has an extensive habitat, being found from the western coast of Africa, through the interior of Asia, as far east as China and Java. The *Python Sebae*, the Fetich-snake of Western Africa, boasts its temples, its priests, and its votive maidens, its offerings of delicate meats, fine apparel, and valuable jewels; while the Natal rock-snake, (*P. Natalensis*), although not actually worshiped,

bears a charmed life as far as the natives are concerned, from a belief that any one venturing to maltreat the reptile will be sure to suffer for it sooner or later. The rock-python (*P. mohurus*) is the Regent's Park heroine of a hundred eggs the topic of conversation in all naturalist circles. This interesting lady-serpent took up her abode in the Zoölogical Gardens eleven years ago, and may possibly be the identical python which, out of temper at being removed from the old-fashioned box in which its kind were wont to be cabined and confined, to its present roomier quarters, tested the strength of the plate-glass by dashing furiously at an innocent spectator, and disabling itself for months. The pythoness has certainly borne captivity uncommonly well, growing, if not in beauty, in size and strength, her duration vile being rendered less irksome by the loving attention of her lesser half, a python, small indeed, compared to herself, but by no means of contemptible proportions.

At the beginning of the present year, the circumference of the pythoness increased to such a degree as to excite the alarm of her keeper, who, finding that she had not, like one of her tribe, swallowed a blanket, or, like another, devoured her companion, was puzzled to account for the alteration in the appearance of his charge; and it was only a few days before the mystery was satisfactorily solved that the real cause was suspected. On the fifteenth of January, it was discovered that the pythoness had excluded rather more than a hundred dirty-white, leathery-looking eggs. The effect of this maternal effort was very different to what might reasonably have been expected; instead of gorging four or eight rabbits at a meal, as had been her custom, she spurned all food that was proffered, although she continued to drink freely; while, singularly enough, the male python, hitherto contented to dine on peas, made up in some measure for his lady's want of appetite, and disqualified himself for enrollment in the Vegetarian Society. Meantime, the pythoness coiled herself above her eggs, covering nearly the whole of them, and has ever since been most assiduous in the performance of her incubatory duties; not with good temper, it must be owned, for she had not only threatened her keeper for offering to disturb her, but repulsed even the affectionate

approaches of her consort. Up to the time at which we write, her fast has remained unbroken without any signs of attenuation.

The present is not the first instance of a python incubating her eggs in captivity. In 1841, one at the Jardin des Plantes in Paris, after two months' labor, hatched eight eggs out of fifteen. Professor Valenciennes then ascertained that the heat of the incubatory serpent was ten or twelve degrees centigrade above the temperature of surrounding objects. Careful experiments at the Zoological Gardens confirm those of the Professor. On the twelfth of February, the temperature between the coils of the pythoness was very little more than six degrees (Fahrenheit) above that of the male python, inhabiting the same compartment, and subject to exactly the same external influences; eighteen days after, there was a difference of no less than twenty degrees, the heat of the incubating female having increased from eighty-one degrees

six minutes to ninety-six degrees. As might have been expected, this interesting event has excited some discussion, the majority of modern naturalists being in accord with the authority who has so lately declared that "no reptile is known to hatch its eggs." Mr. Waterton has not hesitated to declare such a proceeding "an impossible process. Dame Nature can not sanction it. There is nothing in the composition of a snake that can produce it. The body of a snake is hard, and solid, and scaly, qualities quite useless in hatching eggs, which require warmth, and smoothness, and pliability when birds sit on them; and heat and dryness when hatched by the artificial warmth of the atmosphere." Time will show how far this dictum is justified; we certainly shall not be greatly surprised if the non-incubatory theory is overthrown, remembering that the impossibilities of one generation of naturalists have, before this, become the familiar facts of their successors.

From the London Review.

THE NEAR AND THE HEAVENLY HORIZONS.

THIS is "poetry in prose" in very deed. We have seldom met with a more delicious book. In the word-pictures of *The Near Horizons*, the amiable authoress carries a perfect witchery in her pencil. She makes us see in her own light, and feel as she feels. A thousand of the things she tells of, we have seen and felt, again and again, but we never thought of describing them—touching appeals to our natural sense of the beautiful, and awakening almost *recollections* of what is yet so general and common, that no particular case is remembered. We never thought that these incidents in manners, and little bits of scenery, and little things in those little bits, were ever so to strike

the eye again, and fetch up feelings one thought to be hopelessly gone. Here all nature, not the vast and combined alone, but the minute details, are all "retouched again." It is the next best thing to actual walks and visits with the painter, thus to live over again these pictured scenes of what is true and beautiful in all lands, and therefore always all our own. We could crowd our page with illustrations of the power of her pen. Take this:

"How charming a village is! How charming those fountains with wooden basins—if the village be rich with stone ones, the water trickling down and running over! In the evening, the cows come heavily by, drink slowly, and return to their stalls, scattering sparkling drops from their cool, wet muzzles. The pleasant smell of hay is wafted from the open barn. Women come and go, and wash vegetables at

* *The Near and the Heavenly Horizons*. By Madame De GASPARIN. Hamilton. 1861.

the fountain. Men seated before their houses sharpen their scythes and fill the air with metallic notes. Children sing and dabble, and heap up handfuls of fine sand. Hens seek their food with that little, anxious, monotonous cluck, that protest of a good housewife who sighs each time she puts by a millet-seed. Cocks, proudly thrown back on their tails, send forth a warlike cry, which gets repeated by all the sultans near."

Again :

"There is one exquisite hour in an oak-wood — that particular moment in spring when the underwood is all green, while the old trees are not yet fully out. At their feet there is an inveterate entanglement of honeysuckle, elder-bush, and clematis, all vigorous, full-grown, in the first glory of their first leaves, with tall plants intermingled; while above, at a great height, spreads the light dome of the mighty trees. Look where you will, it is luminous. There is above you rather a green cloud, an emerald transparency, than decided verdure. The very atmosphere is green. Green seems floating in the air, blending with the blue of the sky. There are none of the intense tones of summer; none of the warm coloring, the broad, massive touches of July; every thing is distinct, every where there is shade; and against the soft green of the young foliage you can trace the bold outline of the dark trunks and the gnarled branches of the oaks."

But Madame de Gasparin is as clever in depicting the heart in its nicer shades of grief and joy as in picturing the outer world. It is not an art she possesses, except so far as the art of expression is concerned; hers is a gift. She discerns the spirit of her subjects; it is the dissection of the living, without cruelty or evil curiosity. She puts her finger on the pulsations of the living heart, and tells its beatings. It is a joyous thing to weep with her, as well as to bound with her in exultations. We feel that she has told us the truth, and that it is which impresses and pleases.

Take as a specimen the following picture of a sick-chamber :

"There was an unnatural stillness in the air; in that quiet room, entered and left so noiselessly, where meals were taken at regular hours; where in the evenings the father sat reading to himself by the lamp-light, while the mother sewed, and there brooded a deeper sadness, a more intense woe than bursts of weeping ever expressed.

"The darkest despairs are the most silent; and it was one of these that the heart of Rose concealed; no disappointed love, no foolish hopes deceived. No; but let her thoughts turn

where they would, from her first days to her last, she could not find one happy moment — not one. And, now, where was she going? What would be her fate in the presence of that God from whom she had asked nothing, had received nothing? In her hours of pride, indeed, she tried to contend with him; but her daring only left her more desolate, the darkness thickened, she was appalled at herself.

"One evening it was getting dark; the wind was driving the snow-showers along the desolate streets; you heard nothing except the wooden shoes of some belated frequenter of the public-house. It was cold, gloomy; the lamp was not yet lighted; the father was musing, his back against the stove; the mother, with her elbow resting on the window, watched the falling flakes, one side of her face whitened by the reflection. Rose was motionless in the large bed, breathing unevenly; she seemed dozing."

A scene of tender mutual forgiveness follows, which we are to attribute to the manifestation of Divine forgiveness, although that is not made so clear as we could wish.

"But as for her, an ineffable rapture filled her heart. Heaven awaited her; earth, before relinquishing, lavished on her all its treasures. In an instant, like one who gleans in haste, her hand snatched all the richest sheaves. A moment is a thousand years to one about to enter on eternal day. She had reaped all, she regretted nothing. Of the love of her father and her mother nothing henceforth could deprive her; the love of her God shone round about her. In this glory she departed.

"The Lord has sudden unfoldings, such as these, for souls long closed. For beaten-down stalks he has looks which ripen into golden harvests. He has warm rains for parched-up grounds. He has royal compassions at which the hosts of angels break into hallelujahs of praise that ring from heaven to heaven."

We wish we could quote a beautiful paper, "Dovecot;" a picture of poverty fighting against pauperism, and determined to win. Our authoress rightly says: "All the charity in the world never yet made up for work. More than bread, more than help of any kind, the old upholsterer craved for occupation, craved to work at his trade." A favorite old arm-chair is put into his hands. "The old upholsterer's face lit up; in two seconds he grew ten years younger; his forehead lost its wrinkles; his chest expanded; he rubbed his hands; what the sympathy of the wife, the charity of the benevolent, never could have done, work — his work — did. His status returned; his youth, his vigor, his prospects."

The brighter part, however, is *The Heavenly Horizons*, full also of true poetry and freshness of reasoning, which, by the play of fancy which pervades it, becomes interesting as well as instructive. The chapter on "The Authority on which I Rest" is of this character:

"The Bible contains mysteries; God forbid that I should seek to lift the veil! The Bible contains deep sayings; these belong to the discerning and wise. The Bible uses transparent images; simple parables spoken to fishermen, to shepherds; these are for us. For us too the natural language, the positive meaning, the words taken for what they are worth! Ah! if the Jews had only received in their literal sense, as they were presented to them in their revealing details, the poverty of Jesus, the thirty

pieces of silver, the lots cast for the coat, the rich man's grave, and so many others."

Pleasant as is the perusal of such a book as this, its chief *value* is to those Christians who can supply what is wanting. This beautiful book supposes you know much experimentally of coming to the Saviour, and of the life of faith by spiritual union with the glorified Head of the Church. To those unlearned in the way of faith, we fear there is some danger of its leaving them too near the regions of religious sentimentality; while to the spiritual by renewal of heart, of refined sentiments, and intellectual culture, it will prove a fountain of joy for earth's sorrows, by leading to the throne of God and of the Lamb in heaven.

From the Popular Science Review.

T H E H U M A N H E A R T .

BY ISAAC ASHE, B.A., T.C.D., L.M.

THE ingenuity and yet simplicity of contrivance which the Creator so abundantly displays in every department of nature is, perhaps, nowhere so highly manifested as when he designs to provide for the existence and enjoyment of a sentient and conscious being; and doubtless it is to be anticipated, that as his creatures rise in the scale of conscious beings, so much the more abundant care would be bestowed in insuring the welfare of their more highly endowed and more exquisitely sensitive frames. Accordingly, we have in Man the head of the terrestrial creation, the greatest amount and the most exquisite adaptation of contrivance, the highest evidence of design, and not only so, but of the beneficence and goodness of the Designer, and of his intention to render the human body in every respect a suitable and pleasant abode for the rational spirit destined for a time to inhabit it.

Hence, although there must always

exist a considerable repugnance at first to the investigation of the structure of the body, yet, when this is overcome by the force of habit and professional duty, the beauties which are revealed in that structure are such as to fill with delight the thinking and intelligent mind which finds pleasure in witnessing the exquisite adaptation of means to the end which is to be accomplished.

The organ whose structure we have selected as the subject of the present sketch is the heart—one which has always struck us as a masterpiece of ingenious design, perhaps, not to be exceeded by any part of the body, even the eye or ear, and one whose beauties are less generally known than those of either of these organs.

The heart, then, as all our readers know, is the principal means by which the vital fluid, the blood, is sent to every part of the body by a process of pumping quite analogous to what is seen in an

ordinary forcing-pump, though of much more delicate and perfect construction; indeed, it seems highly probable that the principle of the forcing-pump was borrowed from this organ.

Now, what are the objects which have to be accomplished in this circulation of the blood, and how is the heart adapted to their attainment; and what are the contrivances for the avoidance of those dangers which would, mechanically, be most likely to occur?

First of all, a supply of nourishment has to be furnished to every part of the body, no structure or organ being omitted; secondly, waste material has to be taken up and removed from the system after it has served its purposes there; and both these objects are accomplished by the circulating vital fluid, the first by a transudation of the watery part of the blood through the pores of the walls of those minute capillaries which ramify through every portion of the body, and which are too minute to permit the red corpuscles of the blood to escape, the function of these latter apparently being to vivify the watery portion or serum of the blood, which is the nutrient fluid: while the second of the objects above mentioned is attained by the blood circulating through various organs in the body, whose special function it is to remove used-up material by peculiar vital processes, of which nothing farther is known than this, that they are effected by the same transudation of serum through the walls of the capillaries, or, in the case of the lungs, with which we are at present most concerned, by a similar passage of carbonic acid and water out through the walls of the air-cells of which the lungs are composed, while oxygen at the same time passes in by a similar process.

Through the other secreting and excreting organs, the blood, or a portion at least of it, passes in the course of the general circulation of the body, but through the lungs the whole of it passes by a separate circulation quite distinct from that of the body, and called the pulmonary circulation. Since the heart, then, has to effect two distinct circulations, it is necessary that it should be in effect double; and such is, in fact, the case, so that physiologically there are two quite distinct hearts in man and the higher animals, although anatomically the two are joined together. There are, there-

fore, four chambers, two for receiving the blood, the first on its return from the body, the second on its return from the lungs—these are called “auricles”—and two for expelling the blood through the circulation, the first through the pulmonary circulation, and the second through the systemic circulation, or that of the body; these chambers are called “ventricles.” In the heart of fishes there are but two chambers, one auricle and one ventricle; in *Batrachia*, there are three chambers, two auricles and a ventricle; while in reptiles the ventricle has a partition which is imperfect in the lower classes, so that their heart has virtually only three cavities, but which becomes perfect in the crocodiles, so that theirs, like that of birds and mammalia, is composed of four cavities.

This four-chambered heart is a muscle, and acts by means of muscular force. What the agent may be which irritates this muscle and so causes it to contract, has been a subject of much discussion; but it is now generally considered that this agent is oxygen, which is received into the blood in the lungs, and stimulates the muscular contractility of the heart through the nerves of the organ. This muscular action of the heart is almost entirely beyond the control of the will, as indeed are all the vital actions of the body; yet instances have been related of persons who were able to stop the heart's action at will, and in one case this experiment was carried too far, and the individual died by the mere act of his own will. On the other hand, the heart will continue its regular pulsations for a long time after its removal from the body, and of course the death of the animal; and the lower the creature in the scale of creation, the longer will this action continue; so that the heart of a sturgeon will continue to beat as long as twenty-four hours after its removal from the creature.

Through this four-chambered heart, then, the blood must pass in one direction only, and not indiscriminately backwards or forwards; and to effect this there is a whole series of beautiful contrivances. To begin with the first chamber, namely, the right auricle. As this chamber is dilating after each contraction, it receives the blood which has been collected from all parts of the body into two enormous veins, and it also receives blood from some small veins which come

from the substance of the heart itself—for this organ has, of course, to supply blood to nourish its own muscular substance—but some force is wanting besides the mere dilatation of the auricle in order to insure its being properly filled with blood, especially in the case of the vein, which, coming from the lower parts of the body, has to send its blood against the force of gravity, and accordingly these two large veins are provided with muscular coats for a short distance back from the auricle. There is a large opening between this auricle and the second chamber, namely, the right ventricle, an opening large enough to admit the tops of three fingers, and some of the blood flows through this opening at once, but the greater part of it fills the auricle which will contain about two ounces. It fills slowly, but the moment it is full it makes an extremely quick contraction, by which it forces nearly the whole of the blood through the opening into the right ventricle. Quick as this contraction is, occupying about the eighth part of a second, it can be observed to begin where the great veins enter the auricle, and to extend gradually over to the opening into the ventricle; and this is just what is necessary to insure the driving of the blood gradually from behind forward into the ventricle, and the blood can not return up the veins because the muscular contraction of their coats prevents it, in addition to which there is a most beautiful set of valves in the inside of the veins which only open toward the heart, so that the blood can pass that way, but not backward. In the smaller veins of the body a pair of these valves can be seen at about every quarter inch, but they do not exist in the very small veins, nor in the great vein which comes into the right auricle from above; for, under ordinary circumstances, the blood is prevented from flowing backward in this by the force of gravity, and under extraordinary circumstances it is sometimes necessary that it should flow back through it, as will be explained shortly. The walls of the auricle are very smooth, so as to allow the blood to pass freely along them, and they are not very strong, as they only have to force the blood into the next chamber, which is gradually opening to receive it. As soon as this chamber, the right ventricle, is full, it also contracts, but much more slowly than the auricle, since it has to over-

come much greater resistance, for it has to force the blood along the pulmonary artery, and through all the capillary vessels of the air-cells of the lungs. And to effect this, its walls are very strong and furnished with several muscular bands inside, which contract at the same time that the walls are contracting, and so both help the wall, as it were, and also by becoming thicker in consequence of their shortening, fill up the whole cavity of the ventricle, so that it completely empties itself of blood, which the auricle scarcely does.

There are, however, none of these muscular bands just at the mouth of the artery, lest they should cause obstruction to the free passage of the blood. But why does not the contraction of the ventricle force back the blood into the auricle which is just then dilating again? Because, inside the ventricle, and over the opening between the two chambers, there are three thin membranous valves which only open into the ventricle, but the moment the blood is driven against them by the ventricle beginning to contract, they are closed by its impetus, and, fitting accurately, completely prevent all regurgitation into the auricle.

The bases of these valves are connected with the opening all round, and their sides are partially connected with each other, so as to close the opening completely. But there would be considerable danger that the great force with which the ventricle contracts would drive the tips of these valves which are in the center when they close the opening, completely through into the auricle, and so allow regurgitation to take place notwithstanding, and the whole machinery to become hopelessly disorganized. To prevent this terrible accident, which would cause instant death, there are a large number of very fine but very strong branching tendons attached all over these valves on the side next the ventricle, but principally along their margins, where there is the greatest danger of their being forced through, and the other ends of these tendons are united to the ends of muscular bands like those which help the contraction of the ventricle, the other ends of these bands being fastened to the wall of the ventricle—so that they actually hold the valves like ropes, and so prevent them going through into the auricle; of course, these ropes, so to call them, must shorten

as the ventricle contracts, and its wall comes near the opening, since otherwise they would not be tight, and would consequently be useless, and this is accomplished by the muscular bands contracting at the same instant with the ventricle itself, so that the tendinous threads are always kept tight, and the muscular bands relax themselves, and consequently lengthen, as the ventricle dilates, for, otherwise, they would tear the valves completely off their attachments. Thus we see the advantage of having these checks on the valves composed partly of tendon, which will not shorten nor lengthen, and partly of muscle, which will do so; for if they were all of tendon, they would not contract nor remain tight, and the valves would be forced through; and if they were altogether of muscle, the contraction would be too great, and would draw the valve inward, so that they could not completely close, and the blood would regurgitate.

There is, however, another very beautiful arrangement here to prevent the blood being forced in too great quantity into the delicate vessels of the lungs during violent exertions, as this would rupture them—a result which sometimes takes place in spite of the contrivance to avoid it, and hence we sometimes see runners and other spit blood after violent exertion.

This contrivance consists in having one of the muscular bands, mentioned above, very long, but placed nearly opposite the valves, so that though there is very little tendon attached to it, yet during a contraction of the ventricle the other end is brought so close to the valves that it does not draw them inward nor prevent their complete closure; but if the ventricle should ever become too full, so as to endanger the lungs, then the other end of this muscle, being attached just opposite the valves, is drawn away a long distance from them, so that when this muscular band contracts it does draw the valves inward, and allows the blood to regurgitate into the auricle, and from it into the great vein which comes from the upper part of the body, and so the pressure is taken off the lungs. Hence it is that the veins of the neck and face become distended during exertion; and the same thing is seen to take place during a prolonged note in singing, for then the blood does not pass so freely through the lungs, and this safety-valve action, as it is called, is brought into play. It was to this we referred

when we said above, that, under extraordinary circumstances, valves in the upper great vein would not only be useless, but even injurious, since it was necessary that regurgitation should occasionally take place.

The right ventricle, then, as it contracts, forces the blood into the pulmonary artery, a large vessel which soon divides into two branches, one going to each lung. This vessel, like all other large arteries, has elastic walls, which yield under the impulse of the blood from the heart, and immediately afterward contract again, as all elastic tubes would do after dilating; and thus they, as it were, store up the force of the heart's contraction, and transmit it along the whole length of the vessel for the purpose of forcing the blood on throughout. In addition to this, their yielding prevents their being torn by the force with which the blood is impelled into them by each contraction of the ventricle. Here, again, we have a beautiful arrangement to prevent the blood going back into the ventricle under the force with which the elastic artery contracts again. Three semi-circular or semi-lunar folds of membrane, strengthened by fibrous structure, form valves, which are attached by their semi-circular edges to the walls of the artery, while their straight edges look toward the center. They are so loosely attached that they can be pouched out by the blood when driven back against them, and so driven out from the sides of the artery against which they otherwise lie, and be made to stop the opening. But it would be impossible to have muscular bands and tendinous cords inside the artery to hold these valves from going through into the ventricle, for such an arrangement would hinder the blood flowing freely along the artery, and accordingly we have other contrivances to prevent such an accident in this case. In the first place, from the shape of the valves, and their being attached by so much of their margin to the artery, there is less liability to the occurrence of such an accident; and, secondly, as the fleshy mass of the contracted ventricle lies close up under these valves, it gives them support for an instant, until the blood has passed on, and the artery just beyond the valves is once more empty. Since these valves, however, lie so close along the walls of the artery, and are attached by so large a margin to it, another danger is

thus incurred — namely, that the blood which has to shut these valves should altogether fail to get between them and the walls of the artery, and so should keep them open instead of shutting them. This danger is avoided by the elasticity of the artery, for, as the vessel dilates under the shock of the blood, it is evident that it will form pouches behind the valves, into which the blood must flow, and so act on them just as the water in a canal does on the gates of a lock, which it can never shut so long as they lie flat against the banks, but shuts immediately if they are pushed out from the banks. Just in the middle of the unattached portion of the margin of each valve, there is a little projecting fibrous particle, which has been considered to be useful in effecting the same object, for, as it will touch the wall of the artery first when the valve opens back, it is evident that it will keep the rest of the valve out a little from the artery, and so always leave a passage behind it for the blood. These three little particles also, one on each valve, have been considered to be of use in another way when the valves are shut; namely, by filling up the very center of the opening, which might otherwise not be completely closed, although the margins elsewhere overlap a good deal.

As the blood comes back from the lungs after being oxygenated, it is poured by four veins into the left auricle of the heart, which is the third chamber; and this, just like the right auricle, pumps it into the left ventricle through an opening a little smaller than that on the right side of the heart, and guarded similarly by a valve having only two leaves or flaps, instead of three, but provided with the same arrangement of cords and muscles, only that here there is no safety-valve arrangement as on the right side — since, in the first place, the left ventricle may always, and can always, empty itself of the blood as fast as it is filled with it, for it drives the blood through the body, the structure of whose capillaries is much stronger than in the capillaries of the lungs, and consequently in no danger of giving way; and, secondly, if there were a safety-valve action, it would only overload the lungs, for there are no valves in the pulmonary veins to prevent it going back, as there in other veins, and thus the very mischief would be produced, to

avoid which the safety-valve arrangement is provided on the right side of the heart.

The left ventricle, or fourth chamber of the heart, is the strongest of all, since it has to drive the blood through the whole body, and it also drives a small quantity through the muscular substance of the heart itself. The great artery through which it sends the blood is called the aorta; it afterward gives off branches, which again ramify until the subdivisions become innumerable, and supply all parts of the body. Its opening is closed by three semi-lunar valves, precisely similar to those closing the opening into the pulmonary artery; and as both these large arteries proceed upward from the heart, the force of gravity aids the blood in shutting the valves. Sometimes, however, any of these valves may become diseased, and not act perfectly, and then death is sure to ensue shortly, and may be very sudden. We remember having a patient under our care, who suffered much, and died suddenly thus; and we found, afterward, that every one of the three valves which guarded the aortic opening had a large hole through the middle of it.

The muscular fibers, of which the substance of the heart is composed, and by the contractions of which its force is exerted, are very much interlaced, but the greater number of them are inserted, by both ends, into strong rings, of fibrous and cartilaginous structure, which constitute the margins of the openings from the auricles to the ventricles, and also from the ventricles to the two great arteries. The fibers which pass round the cavity of an auricle, and so form its body, are inserted by both ends into the cartilaginous ring which is between this auricle and its corresponding ventricle, and those which similarly form the corresponding ventricle are inserted into the same ring, just as in a balloon the cords which surround the balloon and those which come from the ear are inserted into one and the same ring placed between the two. Some of the fibers of the ventricles are also inserted into the rings at the openings into the two great arteries, so are the arteries themselves, as well as all the valves above mentioned. In some of the larger animals, as the ox and the elephant, there is even bony structure connected with some of these rings.

There are other muscular fibers which are circular, their ends being, if we may so speak, inserted into themselves, like the horizontal cords on a balloon; but to enter further on the arrangement of these fibers would be too technical for our present article.

Now, it is evident that, owing to all the motion involved in these contractions and dilatations of the heart—motion to such an extent as even to make its pulsations visible externally between the ribs—there would be a great amount of wear and tear, and friction against other organs and so impediment to the heart's motion itself, and injury to it and other organs, if there were not some contrivance to obviate this result. Accordingly we have the heart completely inclosed within a beautiful bag, inside which it can work freely, without any inconvenience or danger to itself or the neighboring organs. The structure of this bag, or closed sack, is admirably adapted for allowing freedom of motion. It consists of two membranes, which adhere closely to each other for a great part of their extent. The outer membrane is the strongest, and is continuous every where all round the heart, except where it is pierced by the lower great vein from the body; it forms a kind of sheath for all the other large vessels, till at a short distance from the heart, it becomes lost on their coats. The inner membrane is very smooth and glistening, and after lining the greater part of the outer one, it leaves it near the great vessels, and attaches itself to the coats of these, and accompanies them for about two inches till they enter the heart, when it attaches itself closely to the outside of that organ, being firmly adherent to it in every part, and completely continuous with itself; so that between the part which lines the outside of the heart and the part which lines the inside of the outer membrane, there is an empty cavity completely closed in, in which the heart moves about; and, to facilitate its movements still more, a small amount of oily fluid is secreted in the interior of this cavity by the shining walls of the inner, or serous, membrane. The arrangement of these membranes, which form what is called the pericardium, is a little difficult to explain without an illustration, and we well remember what difficulty we ourselves at first had in understanding it; but we may illustrate it by comparing the heart

to a hand, with a glove fitting very closely, or rather adhering to it, thrust inside another glove fitting very loosely, the wrists of the two gloves being then sown together, so as to form between the two a closed sack for the hand to move about in; and if we could then imagine a third glove made to adhere closely over the greater part of the second, but leaving it at the wrist, and, a little higher up, by some strange process losing itself by uniting with the skin of the arm, which in this case would represent the great vessels, the analogy would be complete.

There is yet another thin and smooth membrane which lines the inside of all the cavities of the heart; it is called the endocardium, and is continuous with itself and with the membrane lining the inside of the great vessels which enter the heart; and it is of this membrane, doubled on itself at the rings of fibrous and cartilaginous structure, and there inclosing some fibrous structure, that all the valves above alluded to are composed.

Strange to say, a wound of the muscular structure of the heart is not necessarily fatal, even though it enter the cavities, provided the valves and vessels are uninjured; the contraction of the muscular fibers is in so many different planes, that it may even close the wound and prevent bleeding. Thus there is an instance well known amongst members of the medical profession in which a soldier was shot through the heart, who still recovered, and lived for six years, and after his death the heart was opened, and the bullet found in it, in the right ventricle, lying against the thin muscular wall between the two ventricles. Nothing but the result of the *post-mortem* examination could have made such a case credible.

The development of the heart from its very earliest stage is interesting and remarkable. In tracing the early development of the higher animals, we find successive stages of progress, each stage corresponding almost exactly with the permanent or perfect state of a class of animals below that in question.

The heart, for instance, of all vertebrate animals is at first very like the circulatory organ, for a heart we can scarcely call it, which is found in the perfect state of some of the lower invertebrata. It then attains the state of perfection in which it is found in fish, going no farther in that particular class; but in Batrachians, after

passing through the first two stages, development is not arrested as in fish, but goes on to a higher state of perfection. In reptiles, the first three stages being passed through, advance is still made; while in the heart of birds and mammalia, including man himself, the highest state of perfection is at last reached only by passing through the others.

Accordingly, the earliest form in which the heart presents itself is a solid compact mass of embryonic cells, not differing in themselves from the cells of which other organs of the body are constituted, since the cell is the primordial form in which essentially vitality resides, and of which all organized bodies are entirely composed. At first there is no cavity in this heart, but shortly afterward the cells in the center seem to exert repulsive force on each other and become separated, thus forming a cavity which, however, is still closed; a liquid next appears in the cavity, in which the central cells may be observed floating; but even before this, or before even the formation of a cavity, pulsation is observed to take place among the cells. To what such pulsation is owing is beyond our present, or perhaps our possible knowledge; the cells are similar to those in other parts of the body, and yet from their very earliest laying down in this position, and mutual relation, the function begins which the organ is to discharge during the whole period of existence. These pulsations are at first very slow—about fifteen to eighteen a minute, and they simply propel the contents of the cavity to and fro. So far, then, the heart is analogous to the first shadowing forth of a circulatory system which we see in the lowest of the animal sub-kingdoms, the Protozoa, in whose transparent, gelatinous, celluliform bodies one or more clear pulsating spaces are observed in the interior of the cells, and which appear in some degree to effect a circulation in the soft substance of the body.

The fluid within the cavity soon afterward assumes the characters of blood, having been at first a homogeneous fluid, like the circulating fluid in the class of insects. About the same time the cavity opens, forming communications with the great vessels in contact with it which have been developing themselves *pari passu*, and subsequently the cells of which the walls of the heart are composed, are transformed into fibrous and muscular tis-

sues, and into epithelium, which is a name applied to the cells which constitute lining membrane, whether externally as the skin, or internally, as the mucous membrane.

About the same time the heart, which was a straight cavity hitherto, becomes curved like a horse-shoe, and shortly afterward divides into three cavities, which contract in succession; one of these is an auricle, another is a ventricle, and the third is a large bulb, which receives the blood as it leaves the heart. The heart has thus assumed the condition in which it exists permanently in fish, namely, a two-chambered cavity; for the bulb must be regarded as a vessel, and indeed soon splits up into a number of arches, which remain permanent in fish, and carry the blood first to the branchiæ or gills, and afterward round the body; but in higher animals these arches become closed after a time, with the exception of three, one of which remains persistent, and forms the arch of the aorta; a second is the vessel which we mentioned above as connecting the right ventricle with the arch of the aorta before birth, and becoming closed in one part soon after birth; and the third is a similar vessel on the right side, which, however, becomes closed before birth. The part of the second one which remains open, gives off the artery to the lungs, which, of course, remains persistent; and some parts of the other closed arches still remain open, and become the arteries for the head and arms.

Next in order, in the development of the heart itself, comes the separation of the auricle into two chambers, thus giving us the heart of the Batrachians and lower reptiles, (an opening however, still remaining until birth, as is mentioned above;) and then a division is formed in the ventricle also, which is completed before birth, and is found in the crocodiles, birds, and mammalia, including man himself. The bulb mentioned above becomes swallowed up in the ventricles, and the partition, after separating the ventricle into two, goes on, and separates the base of the bulb into two, thus separating the roots of the pulmonary artery and aorta.

We have thus given a brief outline of the structure, functions, and development of the heart, that beautiful machine by which circulation is kept up and nutriment supplied to all parts of the body. Who can witness such contrivance, such

resource and ingenuity, without feeling himself compelled to acknowledge the existence of an Almighty and benevolent Designer? If it be true that "the undevout astronomer is mad," much more, we think, is the undevout anatomist, and they most unjustly libel the science, who say that the study of it has a tendency to foster atheistic sentiments.

We have seen this machine, the heart, at rest, as it is presented to the view of the anatomist, both at various stages of its development, and in its perfect state. It is possible even to witness it in motion discharging its functions, as it is presented to the view of the physiologist, yet even then we should have seen but the commencement of the wonders that exist there; for what those mysterious forces are which first develop its structure, and subsequently retain it in action, endowing it with that exquisite irritability or sensitiveness by which it becomes, on the ap-

plication of suitable stimuli, a working, nay, a living and self-repairing machine, or what even is the essential force in those stimuli—these are things which neither the knife of the anatomist, the microscope, nor chemical analysis, nor any other reagent at our disposal can reveal.

Indeed, it is probable that they are beyond the scope of our present faculties to comprehend, yet they also are the works of the Creator, and, doubtless, intended to display his power and skill to intelligent beings; so that from our very ignorance and incapability for such knowledge here we are led to hope for a higher state of being, where, with more perfect faculties, we may be permitted to satisfy the longings of the mind for a knowledge of the hidden laws of the Creator, and so of the Creator himself, and to explore all those mysteries of nature which here are among the things unknown.

From the London Review.

HISTORY OF THE MARTYRS IN PALESTINE.*

DR. CURETON has long distinguished himself as the discoverer, editor, and translator of various important remains of the Syriac literature of the early Christian centuries. The romantic story of the Nitrian mss. of the British Museum, which are at once his workshop and harvest-field, is familiar to every one; and though the learned alone can appreciate the erudition, the critical judgment, and the marvelous industry and patience, which mark his labors, he can not fail to win, what he well deserves, the gratitude of all who prize the past for the light which it sheds upon the dark ways of the present, and who feel it to be good to turn over the family chronicles of the universal Church. Viewed under this

**History of the Martyrs in Palestine.* By Eusebius, Bishop of Caesarea, discovered in a very ancient Syriac Manuscript. Edited, etc., by WILLIAM CURETON, D.D. London. Williams and Norgate. 1861.

last aspect, Dr. Cureton's latest production above named has a value and interest no way inferior to that of any of its predecessors. Readers of Eusebius are aware, that in the eighth book of the *Ecclesiastical History*, there is a passage, in which the scholar-bishop promises an account, in a separate form, of the martyrs whose sufferings had come under his own observation or immediate knowledge. At the same time, most of the Greek mss. of the *History* itself are known to contain a brief narrative, which answers to this description, but which has no fixed place in the work, being found now in this position, now in another, though commonly at the end of the eighth book, where it appears in Heinichen's and other printed editions. It could scarcely be doubted that this was substantially the monograph of which Eusebius speaks; yet no Greek copy of it is known to ex-

ist apart from the larger *History*; and various considerations led to a general belief among the commentators, that the piece in question was an abridgment, made by the author's own hand, of a more complete and detailed account, which had perished. A discovery of Dr. Cureton's puts a new face on the matter. In that "wonderful volume" of the Nitrian Syriac mss., whose biography Dr. Cureton has written in the preface to his *Festal Letters to Athanasius*, he found, among other treasures, a work "On the Martyrs of Palestine, by Eusebius of Cæsarea," transcribed, like the rest of the volume, at the early date of A.D. 411, within about seventy years, that is to say, of Eusebius's death. Examination soon showed that this was not a mere translation of the paragraph in the *Eccelesiastical History*, but a distinct and fuller tractate on the same subject; and all subsequent scrutiny and criticism have verified the conclusion to which Dr. Cureton was very early led respecting it, namely, that this Syriac text must be considered to be a near reproduction of that larger Greek martyrology, which Eusebius is supposed to have afterward condensed and shaped to the purposes of his more general *History*. What the precise historical relations may be, which connect the longer and shorter narratives both with one another and the *History*, it is hard to say. It is not improbable, that Eusebius, having promised the Book of the Palestinian martyrs in the first edition of his greater work, found time to write it very shortly after that edition was published, and that in the later recensions of the *Eccelesiastical History*, he introduced that modification of his treatise, which is found in the Greek copies. It may be properly called a modification; for though there are details and descriptions in the larger treatise, which are wanting in the smaller, and which we are glad to recover from the wreck of the ages, the two are one in their leading features, and there is often an all but absolute verbal correspondence between them running through sentences and paragraphs together.

Whether in the more curtailed or extended form, the narrative itself does infinite credit to the heart of Eusebius; and despite its tautology and its other artistic defects, it is worth all the fine writing in Christendom as a simple and

touching memorial of the piety, patience, and faith of the days of old. An age like our own—one not distinguished by a fanatical love of the stake—will be quick at finding weak points in the conduct of the holy men and women, whose sufferings are here recorded. And we do not pretend to say that there are no such points. Let it be enough, however, to hint at their existence. To linger on them for a moment, side by side with the amazing spectacle of courage, fidelity, zeal and love for Christ, which these ancient saints exhibited, would make a noble nature quail with scorn of itself. If any one wishes to escape awhile from the tedious presence of factitious graces and spiritual sauntering, he can not do better than ask Eusebius to tell him the pathetic story of the life and martyr-death of Epiphanius, the Lycian, or to describe the good confession which his beloved Pamphilus's noble disciple Porphyrius witnessed, or to recite to him, as long as his hearer can bear to listen, what Theodosia of Tyre passed through, or that tried saint "of the land of Gaza," or Valentina of Cæsarea, her companion in the fire, or the poor girl from Baishan, whose pitiful case he describes near the end of his piece. Verily Christianity was something fifteen centuries ago, whatever it is now.

Dr. Cureton has executed his task of editor with the accuracy, precision, and completeness which characterize all his publications. The compliment which he pays his French fellow-laborer for the scholarly exactness of his Syriac texts belongs in full measure to himself. An explanatory and critical preface of some ten or eleven pages forms the first part of the contents of the thin but comely octavo, in which the results of his recent Eusebian studies present themselves. This is followed by an English translation of the Syriac, which merits commendation not only for its faithfulness to the original, but also for the happy manner in which it preserves the middle-line between a slavish adherence to the Semitic idiom on the one hand, and an unwarrantable disregard of its just claims on the other. To this second section of the book—the most interesting of all for the general reader—succeeds a number of well-written notes, very much on the plan adopted by our author in his *Syriac Gospels*. Finally, we have more than fifty pages in

which the Syriac text spreads its forms of beauty and grace before the eye. We should like to hear some philological Ruskin talk about the Estrangelo character, as it appears in Dr. Cureton's volume. We are greatly mistaken, if he would not find witcheries akin to those of cloudland and woodland in this fair creation of "art

and man's device." We do not know how many more literary discoveries Dr. Cureton intends to make, or how many more good books he thinks of writing. If his future fortunes and achievements at all equal his past ones — may he live forever!

From the National Review.

MUSIC AND THE LYRIC DRAMA.*

CROMWELL, notwithstanding his natural fondness for music, was obliged to submit to the prejudices of the Puritans, and allow the ecclesiastical chanting and anthems to be supplanted by the psalms of the Presbyterians. It is amusing though to see that he took especial care to have the organ which was expelled from Magdalen College, Oxford, brought to Hampton Court for his own private enjoyment. But Cromwell had encouraged operas as a popular entertainment, by his permission given to Sir William Davenant to open a theater for the purpose at the upper end of Aldersgate street, in a large room at the back of Rutland House. Here, in 1659, the first of English operas was performed, with Henry Cook, Mrs. Coleman, (wife of Dr. Charles Coleman, composer of the instrumental music,) Peter Rymon, Matthew Lock, (so well known for his music to *Macbeth*, composed in 1674,) who wrote the music for the fourth act, Henry Lawes, who wrote that of the first and fifth, Henry Purcell, the father of the great Purcell, who was born some three years after, and others. The opera was called "*The Siege of Rhodes*," made a representation by the art of perspective in scenes, and the story sung in recitative music." The orchestra in this primitive opera consisted of six performers, and the chief instrument was the harpsichord. Purcell, who claims for England an honorable place in the annals

of lyric art, was thus brought up in the then best school; he had heard all that Cambert could do in his *Ariadne*, and knew the music of Grabu, another Frenchman, who accompanied Cambert to the English court, and was taken up by Dryden to write music to his political opera *Albion and Albinus*, performed in 1685. But there was at Oxford a little knot of musical spirits, meeting at the house of Will Ellis, organist of St. John's, in 1656, as Anthony à Wood tells us, and occasionally at the "Salutation Taverne," where "Peter Pitt, Will Bull, Kerr Digby, and others of Allsoules, as also Ant. W., did give a very handsome entertainment" to Davis Mell, the first violinist in London and clockmaker, being in Oxon, whom "the company did look on to have a prodigious hand on the violin." At these meetings quartets and sonatas in some form were played, possibly from the works of Bassani of Bologna, the master of Corelli. It is evident that, though the fashion of the music was French, the inclination of the English taste was toward the Italian. Milton had spoken of the Italian music; Pepys says in his *Diary* that Sir Tom Killigrew had been eight or ten times to Rome "to hear good musique, so much he loves it." Pepys seems to have perceived the best character of the music in the recitative, though Battista Draghi was an eminent composer; and Pepys confesses himself "mightily pleased with the musique." But the opera

* Concluded from page 224, vol. IV.

never came out. Another Italian contributed much to the preference for Italian music in the latter part of the reign of Charles II. This was Nicola Matteis, mentioned in the ms. *Memoirs of Music*, by the Hon. Roger North, brother of the Lord Keeper. He was a sort of Paganini of his day; for he was a wonderful violinist, and no man could play his music but himself, it was so difficult. Mr. North's description of his style shows that good playing was then appreciated: "His manner of bowing, his shakes, divisions, and, indeed, his whole style of performance, was surprising, and every stroke of his bow was a mouthful. All he played was his own composition, which manifested him to be a very exquisite harmonist, and of a boundless fancy and invention." We have dwelt thus upon the sources of Italian influence to show that Purcell, who followed after this time, had abundant means of becoming acquainted with it. He expressly says himself "that he has faithfully endeavored a *just* imitation of the most far-famed Italian masters, principally to bring the seriousness and gravity of that kind of music into vogue and reputation among our countrymen, whose humor 'tis time now should begin to loathe the levity and balladry of our neighbors." Owing his ignorance of the meaning of the language, he thinks he is not mistaken in the power of Italian notes, or the elegancy of their compositions.

This could scarcely have been said better, and it shows us the secret of his own excellence in his sensitiveness to the beauty of the Italian style, then chiefly superior in the grace and apt modulation of the sounds in the words and the sentiment. Purcell is known to have studied constantly the music of Bassani, of Carissimi, Stradella, and perhaps Lulli. Had not Purcell died an early death, at thirty-seven, he would have done more for English opera than has been achieved as yet; he would have swept away all spoken dialogue, and made his operas complete with recitative. As it was, the art relapsed into a pitiable condition, not likely to be relieved by Dryden's inspirations, and certainly not favored by the banter afterward bestowed upon the opera by Steele and Addison in the *Spectator*. It was an age of display and sham, with a feeling of inflated classicality in all the arts; and in opera especially the theme was always

a classical one—the Horatii and Curiatii, Hydaspes, Arsinoe, Pyrrhus, and Demetrius, Camilla, and such like. There was the same preposterous taste for sham lions and satyrs that belonged to the rude period in Italy, and every kind of absurd "properties." Addison makes immense fun of the lion in *Hydaspes* that Signor Nicolini had to kill; and who, though only a candle-snuffer in the noble disguise, became dangerous by repeated public defeat, and at last offered to wrestle Nicolini for any thing he pleased *out* of his skin. Operas at this time, 1705, were sung partly in English and partly in Italian, the two rival singers, Margari-ta l'Epine and Katherine Tofts, being the stars at Drury Lane in *Arsinoe*, an opera by Clayton. *Rosamond*, the libretto of which Addison wrote for Clayton's music, was a failure, and is thought to have made him so sarcastic against the opera as an entertainment. But Addison, like St. Evremond, who pronounced the opera "une sottise magnifique, mais toujours sottise," was evidently at heart a lover of the lyric art; although it was not to be wondered at that he found it impossible to overlook the absurd incongruities which then surrounded the opera. When Handel came over in 1710, and brought out his *Rinaldo*, he made very small impression upon the *Tatler* and *Spectator*. The sparrows and chaffinches flying and chirruping about the stage was too good a subject for the critics to miss; but still the opera was a success, to the annoyance of Clayton and his literary patron Steele. Anastasia Robinson, as prima donna, seems to have had much to do with the success of Handel's operas, and still more after she became connected with the Earl of Peterborough, whom she eventually married. It was quite the thing then to fall in love with the contraltos; Lavinia Fenton, who was equally the rage as Polly Peachum, became Duchess of Bolton; and Miss Campion had, before that time, been implored to become Duchess of Devonshire. In fact, the opera was then more like the *salons* of Paris, as a center of intrigue and opposite factions, than a place where people went to enjoy music, as they do now. Handel's success, if so it could be called, in the Haymarket, immediately created another opera-house, in Lincoln's-Inn Fields, under Porpora, pupil of Scarlatti, and pet of his "Nobilita Britannica." But

the contest only ended in the failure of both, certainly without any great advance to the art, either as regards new works or improvement in the public taste. Every one of Handel's thirty-five operas is long ago buried in the museums; now and then a song is heard, such as his "Cangio l'aspetto," from the *Admetus*, and "Lascio ch' io pianga," from *Rinaldo*. But, as operas, his works are unknown; and so of Porpora and the two Buononcinis. His operas literally emptied the house, and he used to scatter orders in the highways and byways. Two professors once asked him for orders for the *Messiah*, to whom the maestro broke out with: "Oh! your sarvent, mein herrn! You are tamnable dainty! you vood not go to *Teodora*—ther ewas room enough to dance there when dat was perform." Handel's genius lay in oratorio; he wanted the delicacy of sentiment requisite for opera, and found in that kind of grand vocal symphony of his chorus the massive and imposing effects that possessed his thoughts, for he had no romance whatever about him. Something is perhaps to be laid to the charge of the social condition of his day, so false and hollow in every respect, and little calculated to inspire a warmer or truer feeling in the breast of an artist. It was even worse in Paris, where the gorgeous follies of the Grand Monarque made music the slave of the ballet, and prolonged a period of hideous licentiousness throughout the reign of Louis Quinze, without a sign of improvement till the time of Gluck and Piccini, (1774.) In Germany, at Dresden, at Hamburgh, and Vienna, opera was much in the same condition as in London. There were able singers, such as Faustina, Cuzzoni, Cafarelli, and Farinelli, but the opera was overburdened with scenery and spectacle. Porpora, the young Neapolitan, had brought out his first opera, *Ariana e Teseo*, at Vienna, in 1717, and his success is said to have been splendid; but yet he came to London, as we have seen, to fail, even with Farinelli. Haydn, his pupil, and Sebastian Bach, were then becoming celebrated as composers; but they did nothing for lyrical music, so that here again the art rests till Gluck aroused it. Italy, however, was still the attraction for all the artists. Handel, with the first fruits of his youthful operas, went to Florence, Venice, Rome, and Naples, composing operas at each place,

all of which were well received; Gluck and Haydn derived their style also from the Italians; and Mozart, too, though less influenced by them, for he was one of the few gifted with the true creative faculty of the art. This period in Italy has been called the Augustan age of Italian music; it was characterized by a general aim at refinement of melody; at first rather too much overlaid with the ecclesiastical style of the old musicians, but afterward, in the hands of Clari, Durante, Marcello, Leo, Vinci and Pergolesi—a perfect constellation of musicians—ornament was so profusely bestowed, that even the style of the church became like that of the theater. Still, however, we find but little evidence of the genuine dramatic feeling in the duets, trios, and cantatas which are known by these writers; even Marcello, though he could write a famous essay upon the *Teatro alla Moda*, did not produce any thing better. It is clear, from the allusions of this clever satire, that the manager's effects were the first consideration; the assassinations, poisonings, earthquakes, specters, and incantations, were to be rigorously respected by both poet and musician, whatever liberties might be taken with the music by the singers. That the Italian audiences nevertheless were the best judges of good music may be concluded from their reception of Jomelli's operas, when he came back from Vienna infected with the science—the "musica dei matematici"—of the German school. His *Demofoonte* did not take, and his *Ifigenia* was an utter failure. His friend Metastasio saw that his music was too operose, and begged him to follow his natural style. "It is true," he says, "you can not help sometimes expressing the passions in the way that your happy temperament suggests, but as you are obliged, in order to support your learned idea, too frequently to interrupt the voice, the impressions already made on the mind of the hearer are effaced"—a criticism which applies very justly to the German style to this day. Dr. Burney says he once asked a Neapolitan how he liked *Demofoonte*; and he replied with vehemence: "E scelerata, signore!" The term is amusing, and exactly expressive of the Italian feeling for ease and graceful indolence; every thing complicated is Gothic, pedantic, and *scelerata*. The instinct may be a depressing one to commercial progress, but it certainly seems to involve

some secrets in the taste for art which even now are scarcely comprehended by other people. Very few composers possess the gift of touching the heart, and yet concealing the wand of their art; Rossini is the best example of the union of the florid style with the most expressive and delightfully sensuous music; Mozart, even more sensitive, draws his subject with a simpler line, and in less glittering color. The principle of *ease* in lyric art corresponds to that of repose in plastic and pictorial art; it seems to be indispensable to the enjoyment, as if the mind demanded a moment to itself to dwell upon the full sense of beauty. Something of the same kind is felt in the pleasure of a *refrain*, or in the repetition of the same form in architecture. But this is an element which is opposite to the fiery dramatic feeling which has been increasing upon the lyric stage from the time when Gluck and Piccini began to unite music to the poems of Metastasio, Goldoni, and Marmontel. If we watch the progress of the lyric drama, it is to see more and more expression thrown into the voice parts in the operas of Mozart, Cimarosa, Rossini, Weber, Meyerbeer, Bellini, Donizetti, and Verdi, who has gone beyond the limits, perhaps, in yielding to the demand for dramatic expression, and lost himself a little in the enthusiasm of his own feelings. His music frequently gets an air of empty violence, producing an impression of an inferior order, and destroying the true lyric character, by making music mere declamation. This is the threatening evil of our time, which, however, is avoided by Meyerbeer in such exquisite passages of romantic sentiment as the great duet in the *Huguenots*, and is never perceptible in the grand classics of Mozart and Rossini. It is the musical grace, the rich harmonies, the refinement of style, with an infinite power of expression, according to the responsive genius of the interpreters, which renders their masterpieces so profoundly enjoyable to us at a time when the highly-colored, the rapturous, and the sensational are carrying artists of every kind to the verge of that desperate condition of the debauchee, when the thirst for fresh pleasures is increased, but the sense of enjoyment is deadened.

Returning to the period when the rivalries of Piccini and Gluck were convulsing the musical world, and, indeed, the

fashionable and political spheres, for both composers had their patrons in high places; the Dauphiness, Marie Antoinette, introduced Gluck, consequently Madame du Barry never went to the Opera, and sought out Piccini as *her* musical lion; thus the seeds of this absurd musical cabal were deeply planted before both the rivals were in the field. Christopher Gluck was an orphan of Bohemian parents; as a boy he learnt the violoncello, and being then thrown on his own resources, gained a living as a member of just such a German band as one sees wandering about in our streets. At Vienna, his talent was observed by some of the virtuosi, and he was sent to Italy to study under Martini. His first work, *Artaxerxes*, was performed at Milan, and during five years seven others were composed and played at Venice, Cremona, and Turin. He gained a name in Italy, and was persuaded to visit London; but here Handel outshone him. After a short visit to Vienna, we find him composing again in Italy, where by this time he would have heard the operas of Piccini, whose music was creating the greatest interest at Naples. Piccini was of the school of Leo and Durante; but he possessed original notions of lyrical music, and we are disposed to regard these as the foundation of some remarkable improvements which have gradually been adopted by later composers. He exploded the antiquated practice of ending a piece with a *da capo* of the first movement, and made it work up to a climax at the end, in the manner followed by Rossini and all the modern Italians of his school. His masterpiece, *La Buona Figliola*, brought out at Rome in 1760, the poem by Goldoni, excited an extravagant enthusiasm all over Italy, France, Germany, and England. In this work he invented the plan of making each act end with a climax of concerted music, in which most of the characters were concerned, and the action carried rapidly on, precisely as we have it in a more finished and imposing scale in the grand operas of Mozart and Rossini. In his scenes he contrasted an opening slow movement with a rapid and impassioned ending; so that to him we are indebted for much enlargement of the means of expression. It is much to be regretted that his operas are never heard by the side of Gluck's, although we are quite ready to admit that

the music of neither would be thoroughly enjoyed by audiences accustomed to richer and fresher sound-pictures. Some of Piccini's music we can speak of as wonderfully dramatic; the "Se il ciel mi divide," from his *Didone Abbandonata*, written for the theater of Louis XVI. at Fontainebleau, completely anticipates the dramatic fervor now so much in vogue with audiences and singers, when they happen rarely to be gifted with the charm. His genius was as fertile as Rossini's; for, like him with the *Barbiere*, Piccini composed his masterpiece, *La Buona Figliola*, and heard it completely performed, in eighteen days. He had written no less than one hundred and thirty-four operas, besides oratorios and cantatas, when he came to Paris in 1776. Had they been fewer, they might have rendered more justice to his name. As to comparing the operas of Gluck and Piccini, the advantage is completely on the side of the German; for his operas are, by some lucky influence or other, listened to by the audiences of Paris, who assume to be the virtuosi *par excellence*, while Piccini's are unknown. Yet in the light of the animosity between the partisans of the German and the Italian, with all the court except the King and Madame du Barry, with the prime favorite Sophie Arnould in the part of Ifigenia, Piccini came modestly with his *Roland*, leaving his family in tears of anxiety at the prospect of his failure; and the opera, though not well executed, was pronounced "the greatest imaginable success." Gluck was undoubtedly a reformer, and highly endowed with the dramatic expression; but he lacked the feeling for beauty which every thing Italian displays. He used to say of the Italian airs: "Yes, they are very charming, but they do not draw blood." Yet, in reading his dedication of *Alceste* to the Grand Duke of Tuscany, he descants with excellent understanding upon the lyric drama. When, however, we come to hear his music, it must be candidly owned that, like that of Piccini, it opened the way in which Mozart was really the great explorer. It is this amount of interest that has constantly caused the student in music to support the reproduction of Gluck's operas; but they have never maintained any higher place in the esteem, and can not be said to satisfy the tastes of those who, in the present day, regard the lyric art as wor-

thy of a place beside poetry, eloquence, the drama, in company with painting and sculpture, in the circle of the expressional arts. The successes accorded by the French taste of that day would not have warranted the revivals of the *Orphée*, the *Iphigenie*, and the *Alceste* of to-day, had not there been a Viardot, whose genius could throw life into the dullest music; just as we saw Nicolini enthusiastically lauded by Steele and Addison, whose taste, with all their prejudices, was true as the needle to the pole, for the grace and propriety of his action, the expression of his countenance, and the admirable enunciation of the recitative, nonsensical as it was, and poor the music. We find M. Scudo, and all the eminent critics, enthusiastic in praise of these very qualities in Madame Viardot, not enraptured with the music, although it is supposed to have furnished the entertainment of the Parisians for two whole seasons. We have had the *Iphigenia* performed as an oratorio under M. Halle, with an English poem by Mr. Chorley; and the effect was really better than in the *Orfeo*, performed with every accessory of the finest lyric stage in Europe, and with a prima donna in the chief part who was undoubtedly a dramatic singer, if she was not an Italian vocalist. One air alone lives, and is likely to live, in the *Orfeo*, and that is the "Che farò senza Eurydice;" but its beauty is not at all associated with the dramatic element. It is equally touching as sung in a concert-room, from the simple grace of its form. The music of the Elysian fields, sung by the happy shades, is any thing but a happy strain; it is monotonous, and as to expression would serve as a chorus for many situations. So also of the finale of the second act, which is completely in the style of the church. To endeavor to glorify Gluck as the source whence Mozart gathered his beauties, amounts to no more than to point to the old stories which Shakspeare took as the ovum for his grand developments. Cimarosa was probably as much studied by Mozart and Rossini as Gluck was, and deservedly so; for in the manner which is esteemed his best there is a fund of gay humor and originality of musical idea. We refer to the *Matrimonio Segreto*, an opera that is welcome to this day, notwithstanding the fascination of the *Barbiere*. He was of the same school as Piccini, and composed the

Matrimonio in his thirty-eighth year. His *Orazi e Curiaci* is well known abroad, but forgotten in England.

Before Mozart's time music had gained a most important advance in Haydn's invention of the quartet, and in his improvement of the grander form of the orchestra in the symphony. The German musicians had long been taking the lead as instrumentists, and this naturally enlarged the scope of the orchestra and of music generally as an art of expression. The symphony became a grand sound-poem in the hands of Mozart, it was carried even into higher regions by Beethoven and Mendelssohn; and to it we attribute the larger style which characterizes the *Don Giovanni*, and the *Nozze di Figaro* of Mozart. A painter would say that Mozart enriched his palette with a wealth of new tints and tones, with which he swept in as with a full brush the noble forms and lustrous effects of his pictures, giving character and life to his figures, and compelling the sympathy of the spectator. Although Mozart was bred in the German school, until he composed his *Entführung aus dem Serail* or *Seraglio*, there was no real German opera at Vienna; every thing operatic was in the hands of an Italian clique, at the head of which was Salieri, who was even suspected of poisoning Mozart, such was his hatred and jealousy of the young composer, and such he knew to be the merit of his *Don Giovanni*, for he had the score placed in his hands as director of the opera when it was in preparation. Salieri contrived to have both the *Nozze* and the *Don Giovanni* so badly executed that they failed, and were completely eclipsed by the immense success of his own *Assur*. The *Nozze* was written for the Italian theater, therefore we can not be surprised at such a result; for, notwithstanding Mozart had imbibed the best style of the Italian masters by his studies in Italy, where he had in fact tried his young hand on several operas with the utmost success, Salieri and his countrymen had too good a position to yield to the claims of direct merit. Mozart, then, was driven to gather his laurels at Prague, and said waggishly that he wrote *Don Giovanni* not for Vienna, but for Prague—"for himself and a few friends." His genius at that time was, however, fully recognized by Cimarosa, when he said to an artist who flattered

him by saying his music was superior to Mozart's: "I superior to Mozart, sir! What would you say to any man who should tell you that you were superior to Raphael?" This was before Cimarosa had brought out his *Matrimonio*. Haydn again, after the failure of *Don Giovanni* at Vienna, said in a crowded room, when the connoisseurs were damping the opera with faint praise: "All I know is, that Mozart is the greatest composer of our time." It is remarkable that, on account of the Napoleon war, neither of these operas were performed out of Germany till 1811, when the *Don Giovanni* was given at Paris, but not till 1817 in London. Mozart never could have heard his master-piece as we know it; there was only one superior singer in the cast for the "Il dissoluto punito," that was Bassi, the baritone, who was the Don. It is therefore the more astonishing that he should have conceived such magnificent passages for dramatic expression as the tragic end of the father of Donna Anna, her struggle with the libertine; in the grand finale of the first act, in the statue scene, and in the awful catastrophe when the Don struggles and writhes in the grasp of the avenging Don Pedro, a ghostly statue, whose stony voice mingles with the supernatural and overwhelming sounds pouring from the orchestra. Nothing in music of this genre has ever been produced that will bear comparison with it, either in construction or portentous effect upon the mind. Weber's diablerie tricks of sound in the *Freischütz* are ridiculous; Meyerbeer's music in the raising of the nuns in *Roberto il Diavolo*, and Bertram's fiendish incantation song, are in fine keeping with the scene of the drama, but of far inferior mold to the *Don Giovanni* music. Then what so admirably expressive as the "La ci darem," the "Fin ch' han dal vino," the "Il mio tesoro," and so we might go on throughout the opera? Nothing can show the truth of his conception more than to see how all the great singers, and *only* the great singers, have identified themselves with the chief parts of the opera, every one of which absorbs the last touch of art that can be bestowed upon it, only to become more impressive and delightful. To name these would be to run through the list of all the singers, from Ambrogetti, Tacchinardi, Madame de Begnis;

Madame Fodor, and Ponto the first Leporello, to Tamburini, Lablache, Mario, Grisi, Persiani, and Bosio of our day. Lablache was an early Don in 1832. The *Nozze* was altogether conceived in a different vein, playful, elegant, sentimental, and beautiful throughout, both for the voices and the orchestra. The *Zauberflöte* may perhaps be considered as the next well-known opera; but neither it nor the *Idomeneo*, the *Così fan tutte*, and *Clemenza di Tito*, has ever made the impression that the *Don Giovanni* and *Nozze* have, although they have lived to be heard occasionally at the present day. Mozart himself, though averse to speaking of his works, preferred the *Idomeneo* and the *Don Giovanni*; the former, perhaps, from association with his love for Constance Weber, who was the object of his devotion when he wrote the *Idomeneo*, determined to achieve success. Mozart has often been called the Raphael of his art. The comparison is apposite enough as regards his power, his tenderness, and refinement; but his feeling for richness of harmony in the orchestra—the complete grasp of his palette—would require a dash of Tintoret or Titian. Rossini, coming after him, carried the luxury of color in music, if we may be allowed the expression, to a pitch more comparable with the bravura of Rubens. He wielded his authority over both voices and orchestra, and made them do his bidding in such marvelous work as astonished the performers themselves at their own achievements. In his earlier operas he indulged his fancy for ornament perhaps too much for such themes as the *Tancredi*; still it had always the grace inseparable from Italian art; and in most of his operas this highly ornate style was particularly appropriate, as in his oriental subjects—*Italiana in Algeri*, *Turco in Italia*, *Otello*, and *Semiramide*. In the *Barbiere*, too, the *Gazza Ladra*, and the *Cenerentola*, we could not wish one pearl removed from his delicious roudes, not one piece of broidery from his silken web of oriental dyes in the orchestra. And yet his music can be grand, and declamatory, and imperious in *Tancredi* and *Semiramide*; pathetic and passionate in the *Otello*; sentimental in the *Gazza Ladra*; noble and dramatic in the highest degree in the *Guillaume Tell*. If the highest aim of lyric art be to give the fullest expression to the feelings, and at

the same time the utmost beauty which the senses can perceive in music, then Rossini has attained this. Notwithstanding, he has been all but pronounced a heretic for his consecutive fifths and discords of the seventh resolved upward. Let us recall, for example, the opening of the *Barbiere*, the serenade, "Piano, piano!" and the "Ecco ridenti il cielo," all so glowing with exquisite fancy, and so completely in the piquant yet listless style which leads the thoughts to Seville, and prepares for the delightful humor and *mechannerie* that are to follow in the opera. As a contrast to this, compare the song of Desdemona, "Assise al piè d'un salice," and the song of the gondolier, "Nessun maggior dolor," unequalled as expressive of the sadness of despair. What can surpass the dramatic fire of the trio in *William Tell*, or the delicious tones of love breathed out in Arsace's "D'un tenero amore," especially as we have heard these celebrated *morceaux* sung by Duprez, by Tambrlik, and by Alboni? The *Guillaume Tell* is generally considered his masterpiece. In parts it is; but for unity and perfection of design, for spontaneity and freshness, the *Barbiere* has its votaries, while many would be divided in choice as to the *Otello*. The *Guillaume Tell*, having been written for the Opéra Comique, allows us to remark of the form of lyric drama, which has since arrived at a point of undoubted excellence by the works of Herold, Auber, Meyerbeer, Halévy, Ambroise Thomas, etc., that it is rather an expansion of the vaudeville than opera strictly speaking; as recitative, one of the distinguishing elements of opera, is not employed in the drama, which is here spoken and acted. It remains to be said, however, that all the best operas of this kind have had recitatives composed for them, and have been performed on the Italian stage in London, particularly those of M. Meyerbeer, of which we shall have presently to speak.

Fidelio, the one opera of Beethoven—for his *Melusina* was never finished—was first heard in London in 1832. The celebrated Malibran created the part of Leonora, and it has been a favorite with several eminent singers—Cinti Damoureaux, Schröder Devrient, Mdlle. Cruvelli, and Mdlle. Czillag, the last singer of the part. The music is extremely noble throughout, and touched with the

earnestness of the master, but as a whole it is not equal to the great model of the lyric style; yet there are passages truly sublime, as the chorus of prisoners in praise of light and liberty, and the hymn of deliverance sung by Florestan. The overtures—for he composed no less than three, as if unable to please himself—are counted amongst the very highest works of their class; indeed, the greatest thinker in music, perhaps the greatest poet of the art, was not so sensitive of the charm in the human voice, most likely on account of his deafness, and for this reason expressed himself more in the orchestra.

A delightful lull came over the Italian opera world when the "Swan of Pesaro" ceased to sing; Donizetti and Bellini then cultivated a softer sentiment with resources in their art by no means poor, but of a prettier and feebler mold. Both composers have had the immense advantage of writing in a specially vocal epoch, when there was a rare conjunction of the stars in Pasta, Sontag, Malibran, Rubini, Tamburini, Lablache, Persiani, Grisi, Mario, Ronconi. Thus they wrote naturally for the voice, and owed much to the art of the eminent virtuosi we have just named. Take away these great singers, and the *L'Elisir d'Amore*, the *Lucrezia*, the *Norma*, the *Sonnambula*, the *Lucia*, the *Puritani*, the *Favorita*, fall into the inferior rank of music. On the other hand, there are evidences of a deep dramatic feeling for expression here and there in these works; as, for example, in the last scene of *Norma*, and the celebrated "poisoning trio" in *Lucrezia*, which Rossini himself might have written. But, agreeable to the ear and inoffensive to the taste as all these operas are, and long will be, it can not be said that they have done much for lyric expression. They do not feed the appetite for witnessing and partaking human emotion, though they may have contributed to keep alive the taste for this form of the drama. It is in Meyerbeer, dealing with such a libretto as M. Scribe's *Huguenots*, that we find music essaying a part in the emotions never attempted before. In the whole round of music there is nothing exactly comparable with the duet in the scene between Raoul and Valentina, when at the extreme moment of peril she utters the confession "Io t'amo," followed by that rapturous burst from Raoul: "Tu

m'ami! tu m'ami—o qual brillar!" and sustained by the exquisite touch given to the words, "dite ancor." The situation is one of the most exciting ever given to music to portray; and it may fairly be acknowledged that in this and the chorus—"La Bénédiction des poignards"—we have reached the perfection of that union of the two beauties, music and drama, which composes the lyric art. After this the music of Verdi appears rather as an indication of the tendency of the lyric music of the day than as a realization of any great conception of the musical drama. Verdi sings the music of an oppressed and revolutionary epoch as a patriot would. His cry is always piercing, forcible, and stirring, as in the wild choruses of the *Trovatore*; but when he attempts the pathetic, as in the *Miserere* scene of that opera, or the great situation in the *Rigolletto*, he can not get on without a certain ghastly and fantastic kind of treatment, which shows the musician at fault with his art. Still Verdi's music is most interesting for its *verve*, and the immense vigor with which he represents a certain class of the more mobile and violent emotions.

Music, then, although so far behind the sister arts in its development, so late in blooming, has been ripening in its life of the last thirty years. Having, like art in sculpture and painting, passed through its initiative, its constructive, and its ideal periods, it is now showing the energy of an emotional and expressive virus, caught, perhaps, from the tone of the social organism. By cultivation we have become more sensitive to the power of music, when united with words and action, to express the emotions, while the intellectual enjoyment has been brought to a higher level by the general culture which prompts us to recognize beauty in all works of art. Native melodies, however old and archaic, will always find a responsive throb, because they are thoughts in music, and they charm the ear; but the fugues and constructive conceits of the pre-Mozartian musicians are becoming more and more neglected for the delightful fancies, the breadth, the variety of coloring, and the grand phrasing of Mozart, Beethoven, and Rossini. After these classics, the idylls of Bellini, and the picturesque music of Donizetti, are acceptable as the conversation of a fine musical voice, saying nothing particularly

striking and thoughtful. But in lyrical music Meyerbeer seems to have struck a chord more in tune with the inclinations of the age, though whether more correct in taste than the lyric works of Mozart and Rossini, in which the drama is sustained by the music and not the music by the drama, we leave it to others to decide.

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L I V E S O F T H E E N G I N E E R S . *

"MAN," says Lord Bacon, "is the interpreter and minister of nature." He is that, and more. Familiarity may have robbed the thought of its freshness, but it is a thought of deep truth, that the Deity should have permitted man—so feeble at his birth, and so frail in his constitution—to adjust and control the masses and forces of the material creation, so that they shall subdue one another to his service, and enable him to assert in his history so largely the sublime dominion of mind over matter.

As an historian of events bearing on this fact, Mr. Smiles appears before us. He sketches the lives of those who have won their bloodless victories—not over their fellow-men, but for them—over wood and iron, swamp and river, air and ocean, space and time; and he recounts the means by which this has been accomplished. Some doubts, it appears, were entertained, whether such a theme could be made generally interesting. These misgivings were expressed by Mr. Robert Stephenson, when Mr. Smiles mentioned that he intended to write the life of the late George Stephenson. "The building of bridges," was the reply, "the excavation of tunnels, the making of roads and railways, are mere mechanical matters, possessing no literary interest;" and, doubtless, if the biographer had simply filled his pages with engineers' reports, his volume would have been as dreary as a certain *Life of Telford*. But we think

* *Lives of the Engineers, with an Account of their principal Works; comprising also a History of Inland Communication in Britain.* By SAMUEL SMILES. With Portrait and numerous Illustrations. Two Vols. London: John Murray. 1861.

that Mr. Robert Stephenson did not show his usual discrimination when he implied that this was the only way in which the subject could be treated. A writer of any popular ability, who had to deal with the private and professional careers of our great engineers, who wished to tell the history of their sometimes romantic and even heroic struggles with difficulties; who would narrate how they have nearly all sprung from the peasant's cottage, the herdsman's shieling, and the farm-house; who would fire the ambition of our youth, by showing that the aristocracy of mind is not hereditary, but that mother wit and genius are bestowed by God without respect of persons; who would recount the story of how a London goldsmith like Middleton, a retired sea-captain like Perry, the son of a small farmer like Edwards, a wheelwright like Brindley, an attorney's clerk like Smeaton, a millwright like Rennie, a working mason like Telford, or an engine-brakeman like Stephenson, rose to eminence, and became the benefactors of their race, would assuredly confess that it is not the fault of the theme if its recital be uninteresting. No wonder that the well-deserved success of Mr. Smiles's *Life of George Stephenson* reversed the opinion of Mr. Robert, and that he then urged Mr. Smiles even to extend the sphere he had assigned himself in his contemplated history of engineering, to trace the subject to its source, and to include the labors of Vermuyden, and especially of Sir Hugh Middleton, who may be regarded as the first great engineer this country produced. To this task Mr. Smiles addressed himself, and the result appears in

the two beautiful illustrated volumes before us, in which the biographical, historical, and mechanical materials are graphically adjusted, and in which we have presented to us a comprehensive and minute record of English engineers and engineering.

The earliest traces of engineering in this country are both remote and remarkable. When the ancient Britons were living in huts covered over with branches and sods, when tillage was unknown, when the people subsisted by hunting and pasturage, even then there were some minds that could plan, and some hands that could pile rude fortifications of earth, could transport to Stonehenge, and fit one into another massive blocks of stone, and could erect the Cyclopean bridges over the Teign and Dart, which still remain among us. But it was the early settlers on our south-eastern coasts, from Belgium and Friesland, who first instructed us in the arts of embanking, draining, and agriculture. Romney Marsh was thus early reclaimed. It extends from Hythe in Kent to Winchelsea in Sussex, and is so isolated, that the marshmen are accustomed to say that the world is divided into Europe, Asia, Africa, America, and Romney Marsh! But though its surface is below the level of the highest tides, it is preserved from the sea by a continuous bank, and affords pasturage in genial years to more than five hundred thousand sheep, besides cattle. The erection of this embankment, and the deposit of shingle by the ocean, have so changed the character of the coast, that the Roman town of Lymne is now three miles from the sea; West-Hythe is silted up, and used by the military school of musketry as a practicing ground; Old Romney, and Romney, two ancient ports, are two miles inland, and sheep graze where Roman galleys sailed.

When this embankment had been erected, regulations were passed for its preservation, and the "law and custom of Romney Marsh," afterward embodied in written law, and confirmed by successive monarch, lies at the basis of all English legislation on this subject. Twenty-four elders, or "jurats," were chosen by the inhabitants to see to the maintenance of the sea-banks, and to levy the necessary rates upon the occupiers of the reclaimed marshes. On one occasion, in the reign of Ed-

ward II., the sea broke in and inflicted great injury; on inquiry, it was found that the banks had been imperfectly repaired by those who had charge of them, "through," as Dugdale says, "the pravity of ill-disposed men, who chiefly mind their particular gain, though it be by cheating the public; that were it not for a strict watch over them, all good order would be subverted, and little else but cozenage, if not rapine, would be practiced." There is a tradition that a similar perversion of funds led to a disastrous result on the east coast; that the Goodwin Sands were once dry land projected by embankments, but that a rate intended to be spent in their repair was misappropriated for the building of Tenterden steeple, and that, in consequence, the sea burst in and overwhelmed them. Hence the proverb about Tenterden steeple being the cause of the Goodwin Sands.

The most important reclamation of land early attempted, was by the embankment of the Thames. Previously, it was a broad estuary, often spreading its waters for miles over the lowlands, and forming devious channels at low water through which the ebbing tide slowly found its way to the ocean among vast reed beds and expanses of mud and ooze. Opposite the city of London the tides washed over the lands where Southwark and Lambeth, and what is still known as the Marsh and Bankside, are now situated. On the north side, a British settlement is believed to have once occupied the site of St. Paul's, bounded on the west by the Fleet, on the north and east by morasses, Moorfields Marsh having been comparatively recently reclaimed. The labors of successive generations were necessary to roll back the waste of waters. The higher tides long resisted the attempts made to control their course; scarcely a season passed without the inundation of the reclaimed lands, and the most energetic powers had to be given for impressing laborers and distraining for rates. This was especially needful on the north side, where breaches occurred at Wapping and Limehouse as late as the sixteenth century; the Isle of Dogs was often submerged, and the whole valley of the Lea and rich lands of South-Essex were inundated. At last the work was accomplished, and the Thames was made an artificial river almost from Richmond to the sea.

The most extensive, and probably the

most interesting work of reclaiming land, took place in the district known as the Great Level of the Fens. Not many centuries ago, the vast tract of low country situated around the junction of Cambridge, Norfolk, Huntingdon, and Lincoln, extending sixty or seventy miles north and south, by twenty to thirty broad, and embracing an area of some six hundred and eighty thousand acres of what is now the richest land in England, was a desolation of waters. The Witham, Welland, Glen, Nene, and Ouse poured forth their vast floods from the midland countries, mingling and winding by many channels to the ocean, and forming an inland sea in winter, and a swamp in summer, swarming with fish, and screaming with wild fowl. These rivers were loaded with silt, which ever and anon accumulated so as to choke up the channel, and compelled the intercepted waters to force new courses through the ooze, which often wound back upon themselves, and at last drained away into the Wash. Hence the numerous abandoned beds of old rivers still traceable—the old Nene, the old Ouse, and the old Welland; and thus the Ouse, which formerly flowed into the Wash at Ouse beach, or Wisbeach, now enters it at King's Lynn, near which there is another old Ouse. But probably all the rivers first flowed into a lake, on what is now the Great Bedford Level, from thence finding their way by numerous and shifting channels into the sea.

The largest deposits of silt were along the shores of the Wash, and in the course of ages they rose above the level of the inland districts. The Romans seized the advantage, and reclaimed the part now known as Marshland and South-Holland, by means of bulwarks and causeways that may still be traced. It is believed that they also constructed the great drain called the Carr Dyke extending from the Nene to the Witham, than which, said Rennie, "a more judicious and well-laid-out work I have never seen." But the erection of embankments to shut out the salt water closed in the fresh, and, in consequence, the Fen lands in winter were flooded till so late a period as the middle ages, when there was water enough in the Witham to float the ships of Danish rovers as far as Lincoln. Here and there, amid the flooded Fen lands, an island arose, which became inhabited; one of these was the Isle of Ely, or Eely, so

named, it is said, from the eels that abounded. Here a nunnery was established, and a town erected; and after being destroyed by a fleet of pirates, it was rebuilt; a church sprang up, and the ecclesiastical fame of the place spread so far that Canute determined to visit it. So stormy, however, was one of his voyages from Ramsey to Peterborough—across what are now the fruitful cornfields of Whittlesca Mere—that he ordered a channel to be cut through the Fen, which is still known by the name of the "King's Delph." This region was long the retreat of a lawless and marauding population, and at Ely the Saxons made a last desperate struggle against the invading Normans.

The Fen islands of Crowland, Ramsey, Thorney, and Spinney, are known in history. They rose at intervals amid the dreary level of water, their soil at first so soft and boggy that a pole might be thrust into it for yards; they were overgrown with rushes, flags, and sedge; and the atmosphere was laden with pestilence—"full of rotten harrs." Such a spot seemed to have especial attractions for one Guthlac, the saint of the Fen islands, and he induced a fisherman to land him at what is now known as Croyland. Here, we are told he built a hut, in a hollow on the side of a heap of turf; other votaries joined him; they embanked and cultivated the ground till it became a little oasis amid the desolation. A stone building replaced the first wooden oratory; pilgrims came from far; a village and town were erected; causeways, embankments, and drains stretched further over the fens, and more land was reclaimed, until the wealthy monastery of Croyland became the center of an influential and comparatively populous region.

All these efforts to reclaim the fens were, however, partial and imperfect. Sometimes the draining of one spot caused the water to flood elsewhere; sometimes it made a previously navigable channel too shallow for service, or was diverted from a mill it had worked; and, occasionally, the accident of a night would destroy the labor of years. Many were the vicissitudes thus experienced; and so late as 1607, a series of destructive floods burst the embankments, swept away farms and villages, and did immense damage. King James made efforts to prevent the recurrence of these disasters; but they

were at first of little permanent service, and it was not till he resorted for help to the engineers and skilled drainers of Holland, that effectual measure were adopted.

Nothing could be more dreary than the scene presented by these fens. "In winter, a sea without waves; in summer, a dreary mud swamp." Round the borders lived a thin and haggard population of "fen slodgers," or "yellow bellies," as they were sometimes called, from the frog-like life they led, and it was satirically suggested that they were web-footed. They are spoken of by cotemporary writers as "a rude and almost barbarous sort of lazy and beggarly people;" and Camden describes the country between Lincoln and Cambridge as 'a vast morass, inhabited by fen-men, a kind of people, according to the nature of the place where they dwell, who walk high upon stilts, apply their minds to grazing, fishing, or fowling.' The proverb of "Cambridgeshire camels" probably originated in the practice of walking on stilts. "In the winter time," said Dugdale, "when the ice is only strong enough to hinder the passage of boats, and yet not able to bear a man, the inhabitants upon the hards and banks within the fens, can have no help of food, nor comfort for body or soul." At those times the Bishop of Ely went by boat to Cambridge. The inhabitants of the fens were often alarmed by the sudden swelling of the Ouse, which gave occasion for the cry, "The bailiff of Bedford is coming!" while attacks of ague produced even more alarm, and originated the saying, that a man was "arrested by the bailiff of Marshland."

The first adequate effort for the reclamation of these regions was made by Cornelius Vermuyden, and he also accomplished many other important engineering works. He was invited to come over in 1621, to repair a breach in the embankment of the Thames, at Dagenham. He then drained the park at Windsor; reclaimed Convey island, at the mouth of the Thames; Sedgemoor, in Somersetshire, and Brading Haven, in the Isle of Wight. In 1626, Vermuyden had the reclamation of the district of Hatfield Chase intrusted to him, being supported in the work by Dutch capitalists; and he and his partners being promised one third of the lands they recovered as their reward. This Chase forms a part of the extensive district of Axholme, and be-

longed to James I. It contained about seventy thousand acres. The region greatly resembles the Great Level of the Fens. It is a fresh-water bay, formed by the confluence of the rivers Don, Went, Ouse, and Trent, which bring down into the Humber the rain-fall of Yorkshire, Derbyshire, Nottingham, and North-Lincoln. In the middle is the elevated ground of the Isle of Axholme, and stretching around it—where now may be found some of richest corn lands of England—was a wide sea and extensive fisheries.

But the drainage works were not accomplished without the most serious opposition of the wretched inhabitants of these regions. True, they alternately shivered and burned with ague, and became deformed with rheumatism; but they enjoyed a kind of wild liberty. The fens were their "commons," where their geese grazed; the floods brought fish and water-fowl; and they hated the "adventurers" who thought to improve "our own demaynes" by turning them into corn-lands and pasturage. In *The Poets's Complaint*, they deplored, in such strains as the following, the injury contemplated against them:

"Come, brethren of the water, and let us all
assemble,
To treat upon this matter, which makes us
quake and tremble;
For we shall rue, if it be true, that fens be
undertaken,
And where we feed, in fen and reed, they'll
feed both beef and bacon.
Behold the great design, which they do now
determine,
Will make our bodies pine, a prey to crows
and vermine;
For they do mean all fens to drain, and
waters overmaster—
All will be dry, and we must die—'cause
Essex calves want pasture."

But they were not content to sing their sorrows: they expressed them in more objective forms. Thus, on one occasion, after many years had been employed in draining, inclosing, and cultivating an extensive and fertile district between Tattershall and Boston, a mob assembled, leveled the inclosure, burnt the houses and crops, destroyed the cattle, killed many of the occupiers, and so cut the embankments and dammed up the drains as to inundate the surrounding country. But, despite all opposition, Vermuyden prosecuted his various schemes. He ob-

tained a supply of one thousand men from the Scotch prisoners taken at Dunbar, and five hundred Dutchmen, captured when Blake defeated Van Tromp; and at length completed the drainage of the great Level of the Fens. In order to defray the cost of these enterprises, he had to sell every acre of the lands he had before reclaimed. Heavy demands were made upon him, which he could not meet, and he applied to Parliament for redress. We subsequently lose sight of him; and, after all the benefits he had conferred on others, it is to be feared that he died abroad, a poor, broken-down old man.

Other men carried on the works which Vermuyden had begun. Kinderley proposed to convey the Ouse and the Nene into the center of the Wash, there to unite with the Welland and the Witham; and, by confining the waters, and giving strength to the current, to secure increased depth in the channel. But it was reserved for Rennie to complete the enterprise, so that even Whittlesea Mere and Ramsey Mere have at last been turned from lakes into farms and farmsteads, and "The Isle of Ely" has become as salubrious as Pau in the Pyrenees.

From land reclaiming, rivers, and mining, we turn to traveling and road-making. Roads are literally the pathways of civilization. For centuries after the Romans left England, their highways remained the best in the land. But time and traffic, the forest and the waste, almost obliterated them. Our roads became among the worst in Europe, and laws were passed enjoining that bushes and trees beside roads that led from one market town to another should be cut down for two hundred feet on either side, to prevent robberies. In 1346 Edward III. authorized a toll to be levied for the repair of the road leading from St. Giles-in-the-Fields to the village of Charing. Chancellor Cowper wrote, in 1690, that the Sussex roads were "bad and ruinous beyond imagination." Fuller saw a lady drawn to church in a coach with six oxen. A specially miry road was called "the Sussex bit;" and it was said the reason why the Sussex girls were so long-limbed, was because the stiffness of the mud compelled them to pull out the foot "by the strength of the ankle," till both muscle and bone became lengthened. No wonder that in those days Queen Elizabeth preferred, when she went into the city, to ride on a

pillion behind her Lord Chancellor. The royal vehicle was little better than a cart without springs; and, at one of the first audiences she gave the French ambassador, in 1568, she told him of a jolting she had received in it a few days before.

The first extensive maker of roads was "Blind Jack of Knaresborough." He was born 1717; and, when six years old, lost his sight by small-pox. But his subsequent history was so remarkable that it has been suggested that his blindness was partly simulated; though of this there is no direct evidence. He joined in all the sports of boyhood, went birds'-nesting, delighted in horse exercise, coursed hares, swam well enough to save three lives, and became skilled with the fiddle. Subsequently he made money, bought a horse, followed the hounds, and ran races at the village feasts. On one occasion he rode in a match in Knaresborough Forest, where the ground was marked out in a circle of a mile. He procured a number of dinner-bells, set men to ring them at the several posts, kept the ground, and won the race. After this success, a gentleman who owned a notoriously runaway horse, laid Metcalf a wager that he could not gallop the horse fifty yards and stop him within two hundred. Again Metcalf's ingenuity availed him. As he was allowed to choose his ground, though not near a hedge or wall, he proceeded to Harrowgate Old Spa, and told a man to sing on the neighboring bog. The blind man then mounted, and rode for the morass, and he had not reached the two hundred yards before the horse sank to the saddle-girths, and Metcalf scrambled out, the victor. But it was only with the greatest difficulty that the horse was extricated.

On one occasion, Metcalf acted as a guide to a belated gentleman, at dusk, along the difficult way from York to Harrogate. The road was then full of windings and turnings, and, in many places, it was no better than a track across uninclosed moors. Metcalf brought the gentleman safe to his inn, the "Granby," late at night, and was invited to join in a tankard of negus. On Metcalf leaving the room, the gentleman observed to the landlord: "I think, landlord, my guide must have drunk a great deal of spirits since we came here." "Why so, sir?" "Well, I judge so from the appearance of *his eyes*!" "Eyes! bless you, sir,"

said the landlord, "don't you know that he is *blind*?" "Blind! what do you mean by that?" "I mean, sir, that he can not see—he is as blind as a stone." "Well, landlord," said the gentleman, "this is really too much: call him in." Enters Metcalf. "My friend, are you *really* blind?" "Yes, sir," said he; "I lost my sight when six years old." "Had I known that, I would not have ventured with you on that road from York for a hundred pounds." "And I, sir," said Metcalf, "would not have lost my way for a thousand."

This was the man who distinguished himself as a road engineer, and who built bridges, culverts, and retaining walls, which are still unsurpassed. About the year 1765, a turnpike road was to be constructed near Harrogate; he undertook a sub-contract for three miles; and this was the first of a vast number of projects in which he was subsequently engaged for more than thirty years, during which he made about one hundred and eighty miles of turnpike, for which he received some sixty-five thousand pounds. "With the assistance," says one who knew him, "only of a long staff, I have several times met this man traversing the roads, ascending steep and rugged heights, exploring valleys and investigating their several extents, forms, and situations, so as to answer his designs in the best manner. The plans which he makes, and the estimates he prepares, are done in a method peculiar to himself, and of which he can not well convey the meaning to others. Most of the roads over the Peak in Derbyshire have been altered by his directions, particularly those in the vicinity of Buxton; and he is at this time constructing a new one betwixt Winslow and Congleton, to open a communication with the great London road, without being obliged to pass over the mountains."

His skill in overcoming difficulties was well illustrated in the formation of the Huddersfield and Manchester road. He undertook to make it at a certain price a road; but when tracked out he found that it would cross some deep marshy ground on Pule and Standish Commons, and the trustees told him that he must dig out the bog nine feet deep by fourteen yards, till he came to the solid bottom on which the road must rest. He expostulated at the costliness and inefficiency of the arrangement; and at length

they consented that he should adopt his own method of crossing the marshes, but if unsuccessful, he should, at his own expense, obey their surveyor.

Metcalf first dug a deep ditch along either side of the intended road, and threw the excavated material inward so as to raise it to a circular form; keeping his arrangements as far as possible a secret. Meanwhile, the Yorkshire clothiers declared that the contractor and his men would have to be drawn out of the bog by the hair of their heads. His method was precisely that afterward adopted by George Stephenson in crossing Chat Moss, and consisted in so extending the bearing surface that the road could actually float on the bog. He accordingly ordered heather and ling to be bound together in little round bundles; these were placed in rows in the direction of the line of road, other bundles were laid transversely; and when these were pressed firmly together, stone and gravel were brought on broad-wheeled wagons, and made into a firm and level way. The spectators expected to see horse and load disappear in the morass, and loudly expressed their gratification when their fears were found to be needless. This part of the road proved to be one of the best and driest, and required very little repair for nearly twelve years. The last road Metcalf constructed was between Haslingden and Accrington—one of the most difficult he had made. "During the late years of his career he occupied himself in dictating to an amanuensis an account of the incidents of his remarkable life; and finally, in the year 1810, this strong-hearted and resolute man—his life's work over—laid down his staff, and peacefully departed, in the ninety-third year of his age, leaving behind him four children, twenty grandchildren, and ninety great grandchildren." We now turn to a new chapter of English engineering.

The "ever-watery west" wind that passes over the undulating surface of Great Britain has necessarily made it a land of "rivers and fountains of waters," and these, of course, have always affected the intercommunication of the people. At the place where a river was fordable a village or town would spring up, and thus Oxford, Chelmsford, Romford, and Stamford, arose. But there were many rivers which, at least in winter,

were not fordable, and other means of crossing them had to be adopted. An uprooted tree thrown from bank to bank early served this purpose, and more permanent structures followed. The most ancient bridges now remaining are over the streams of Dartmoor, where the turbulent waters that roar down the deep gorges would have swept a light structure away, but where granite blocks could be laid upon one another to serve as piers, and others might stretch from pier to pier, so as to form a tolerably level road for man and beast. The Egyptian-looking bridge of Dartmouth is such a structure; it has survived the fury of the Dart for twenty centuries, and others of a similar kind may be found in that region.

The modern revival of the art of bridge-building was inaugurated by William Edwards, a self-taught genius, of Glamorganshire, born in 1719. As a young man he spent much of his leisure in studying the neighboring ruins of Caerphilly Castle, the massive remains of which extended over an area of thirty acres. Subsequently, despite extraordinary difficulties and discouragements, he constructed the beautiful "rainbow bridge" of one arch than spans the Taff at Newbridge; he afterward built the bridge over the Usk, and several others, his later productions being a manifest improvement over the earlier.

" 'Not even on Sundays,' says Mr. Smiles, 'did he cease from his labors; but, though the Sabbath was no day of rest for him, his labors then were all labors of love. In 1750 he became an ordained preacher amongst the Independents. Shortly after he was chosen minister of the congregation to which he belonged, and he continued to hold the office for about forty years, until his death. He occasionally preached in the neighboring meeting-houses; amongst others in that of Mr. Rees, the father of Abraham Rees, editor of the well-known *Encyclopædia*. Holding it to be the duty of every religious society to contribute liberally of their means to the support of their ministry, he regularly took the stipulated salary which his congregation allowed to their preachers, but distributed the whole of it amongst the poorer members of his church, often adding to it largely from his own means. This worthy Christian laborer died at the advanced age of seventy, respected and beloved by men of all parties.' His sons were eminent bridge-builders.

In a wild part of the country between Buxton, Leek, and Macclesfield, there was

once a hamlet and district called "The Flash." The people were notorious for their wild and half-barbarous pastimes. They squatted on the waste lands, they encroached on the surrounding estates, their pedestrian hawkers sold wrought buttons in silk, mohair, and twist which were manufactured at Macclesfield, and as they traveled from fair to fair, using a slang dialect, they were generally known as "Flash men;" the name though not the race survives. In this region and among such neighbors, James Brindley was born in 1716. His father was a collier, and neglected his family, but his mother was prudent, and did her best to instruct her children in all the little that she knew. James worked as a common laborer till he was seventeen, but his mechanical tastes early displayed themselves, and he was especially clever with his knife in making models of mills which he set to work in neighboring streams. In 1733 he was apprenticed to Abraham Bennett, a wheelwright and millwright, of Sutton, near Macclesfield. At this period, millwrights were the only engineers, and they effected repairs in machinery as well as they could by the aid of the lathe, the bench, and the anvil; and as the demand for mechanical skill increased they became persons of growing experience and importance, and, ultimately, such men as Brindley, Meikle, Rennie, and Fairbairn, rose from the millwright's shop to the highest rank as scientific engineers.

Brindley's advantages, however, were few, and his progress slow. His master was of intemperate habits, and neglected his apprentice; the journeymen rather hindered than aided him, and he worked his way to success only through a series of blunders. On one occasion this mere "spoiler of wood," as he was called, made such a "mess" of a piece of common wheelwright's work, that his master threatened then and there to cancel his indentures, and send him back to be once more a farm laborer. Two years passed and Bradley had, in Bennett's opinion, learned next to nothing, though in reality he had been groping his way to much practical knowledge; and in the autumn of 1735 he accomplished some repairs in a silk-mill at Macclesfield, in a manner to the satisfaction of the mill superintendent, the surprise of his master, and the mortification of his fellow-workmen, who

had been accustomed to sneer at the "bungling apprentice." "I can yet remember," said Brindley, many years afterward, "the delight which I felt when my work was fixed and fitted complete; and I could not understand why my master and the other workmen, instead of being pleased, seemed to be dissatisfied with the insertion of every fresh part in its proper place."

Before his third year of apprenticeship had ended, the master admitted that Brindley was not the "blundering block-head" that his men had thought him. The neighboring millers would especially request "the young man Brindley" should be sent rather than any other workman, and some preferred him to his master. Bennett was surprised, and inquired of Brindley where he had learned mill-working; to which the apprentice could only reply that it came "natural-like." The master now chided him for making his repairs too well. "Jem," said he, "if thou persist in this foolish way of working, there will be very little trade left to be done when thou comes out of thy time: thou knows firmness of works th' ruin o'trade." Brindley, however, refused to adopt the unprincipled suggestion. He subsequently began business on his own account at Leek, in Staffordshire, at first without apprentice or journeyman.

Between Leek and Trentham lay the little town of Burslem, where inferior earthenware was manufactured, and whence it was hawked by higglers from village to village on the backs of donkeys. At the beginning of the century, the brothers Elers, the Dutchmen, introduced here from Holland the art of salt-glazing, and subsequently the powder of flints was used as a wash or dip, and was mixed with tobacco-pipe clay. It is said that one William Asbury, of Shelton, noticed at Dunstable the soft and delicate nature of some calcined flints, which an ostler was using as a medicine for a horse's eyes. John and Thomas Wedgwood employed flint-powder in their little business, but were hampered by the want of an adequate supply. They, therefore, conferred with "the schemer," as Brindley was called, and in the course of time he erected several flint-wells in that neighborhood.

The reputation that Brindley thus acquired for extraordinary ingenuity, caused

his name to be mentioned to a Manchester man during some marriage festivities at Burslem, whose coal-mines at Clifton were "drowned out." Brindley was sent for, and the remedies he suggested appeared so satisfactory that he was directed to put them into execution. The Irwell bounded the estate, and had a considerable fall. He directed the river through a tunnel in the rock, six hundred yards long, over an immense water-wheel, from the lower end of which the water flowed away into the old channel of the Irwell. The force supplied by the water above overcame the water below, and in a short time the pits were cleared.

Hitherto, the inland communications of this country had depended almost exclusively on roads, such as they were, and on the larger river. The first project for cutting a navigable trench, independently of existing streams, across the dry land, and conveying merchandise upon it, was made by the Duke of Bridgewater. This young nobleman lost his father when he was only five years old, and all his brothers by the time he was twelve, and he was himself so sickly, and his mental capacity, so feeble, that it was in contemplation to set him aside in favor of the next heir. His mother remained a widow only a few months, and from that time neglected her child. Horace Walpole wrote in 1761: "You will be happy in Sir Richard Littleton and his duchess; they are the best-humored people in the world." But it appears that the good humor of the handsome couple was so lavishly displayed in public that there was little left for domestic use. The young Duke, however, grew up to manhood, traveled a gay and careless life, kept race-horses, and occasionally rode them, and once ran a race with the Duke of Cumberland on the long terrace at the back of the wood in Trentham Park. At that time he was so slight in build, that Lord Ellesmere says a bet was facetiously offered that he would be blown off his horse.

A love affair changed the current of his life. He was on the eve of marriage with the beautiful widow of the Duke of Hamilton, who had been the comparatively portionless daughter of an Irish gentleman; but the match was broken off. The lady, however, soon solaced herself with another husband, in the person of John Campbell, afterward Duke of Argyle.

"You and M. de Bareil," said Horace Walpole, writing to Marshal Conway, "do not exchange prisoners with half as much alacrity as Jack Campbell and the Duchess of Hamilton have exchanged hearts. It is the prettiest match in the world since yours, and every body likes it but the Duke of Bridgewater and Lord Conway." The Duke, however, instead

of resigning himself to misanthropy at his beautiful seat at Ashridge, devoted himself to business at his estate near Chat Moss, and we soon find him conferring with John Gilbert, his land-steward, as to the formation of a coal-canal from Worsley to Manchester.

[TO BE CONCLUDED.]

From the Temple Bar Magazine.

THE BATTLE OF THE ETHNOLOGISTS.

AMONG the wars and rumors of wars which give us small and great tribulations, not the least perplexing in the anticipation is the coming grand fight of the ethnologists. Already have we been agitated by preparatory skirmishings; and we are now looking forward with a befitting horror to a tremendous engagement, which will bring into action the great guns of science, and the horse, foot, and dragoons of reviews, magazines, and newspapers.

Before the combat deepens, and the smoke of battle covers the field, we propose to take a glance at the questions involved, and the marshaled forces of the eager and exasperated belligerents, that we may the better understand the future Austerlitzes and Waterloos, the Bull Runs and Donelsons, of the opening campaign.

Dropping our metaphor, which grows too hot for long handling, let us take a glimpse at the great question which bids fair to occupy the minds of scientific and theological controversialists until it is—shall we say, settled?

Unsettled, rather. Have we not rested quietly in the time-honored faith of our ancestors—that all mankind are the descendants of Adam and Eve, and that, when the earth was drowned in the great Deluge, Noah became our second sole progenitor? The common faith in the declaration of Scripture, "that God hath made of one blood all the nations that

dwelt upon the face of the earth"—so that all men are brethren of one great family—is assailed by men of science, whose theories, if sustained, must either set aside the inspired word, or force us to give it new interpretations, if it be possible, by any interpretation, to reconcile it with the demands of the new philosophy.

It is not the first time. We have had, during the past century, several strong battles over the same ground. Astronomy, physical geography, and geology, have all been brought in turn against faith in Revelation. The telescope was to demolish the Pentateuch, and sweep all superstitions out of the minds of men, as a broom sweeps cobwebs from a neglected chamber. The Deluge was declared a physical impossibility. The geologists ridiculed the Mosaic account of the Creation. Well, vast numbers of people became well versed in astronomy, in physical geography, and, to some extent, in geology. Do we find that religion has suffered in consequence? There is a more solid faith and a more earnest piety to-day than in the middle of the eighteenth century.

The new assault upon generally received religious and historical ideas, it may be confessed, assumes, at the first glance, a somewhat formidable appearance. The ethnological polygenists assert that, during the whole historic period, there have existed the same differences in the human races that are seen at the present

time. The sallow, oblique-eyed, flat-faced, and high-cheek-boned Mongolian was the same three thousand years ago that he is to-day. The negro, from tropical Africa, as he is represented upon the oldest monuments of Egypt, is the same black-skinned, woolly-headed, thick-lipped, flat-nosed biped that we find him after thirty centuries have rolled over him, without improving, or perceptibly changing, either his physical aspect or social condition, except in those cases in which he has been brought into an involuntary pupilage to a higher race and civilization. Then, as now, his small brain was set behind, rather than above, his projecting face, and he was the hewer of wood and drawer of water—the captured or purchased slave of his white or tawny brother; and the oldest statue or picture, rude Egyptian painting, or sculptured tablet from Nineveh, which dates back nearest the Deluge, represents the lofty-browed Caucasian as we see him to-day. Change but slightly the costume of the Egyptian who now guides the traveler among the ruins of Thebes, and many of the ancient statues would answer for his portrait.

It does not do, then, to say that white men of the Caucasian type have gradually changed to yellow Mongols, or Red Indians, or negroes, by the influence of climate and temperatures. They have not changed in three thousand years. We have no reason to believe that the negro would become a Caucasian in England or in Nova-Zembla in a thousand generations, or that the posterity of Englishmen living in the heart of Africa would ever be changed to negroes. They might grow very dark-complexioned even in a single season; but a dark-complexioned white man is very far from being a negro, or an Indian, or a Japanese, or an Australian. The theory of gradual climate changes must, we think, be abandoned, and the monogenesis must withdraw or spike their guns, and fall back upon a new line of defenses.

This quarrel of the mono- and polygenesisists, to borrow an economical bit of wordcraft from our Teutonic neighbors, is a very pretty one as it stands; but it is complicated by the theory, boldly advanced, and maintained in high quarters, that men were not created at all, either in a single race or type, or in three, five, eleven, or whatever number of distinct races may be claimed by the most advanced

polygenesisists. According to the developmentalists, who have got rid of all necessity for a creation, and have by consequence no use for a creator, the various races of men, as well as other animals, grew, or gradually developed themselves in the progress of ages, from lower forms of animal life, beginning with the animalcule, which seems but a point of animate existence. As to how they begin no notion is given us; but we are to suppose that all the myriad forms of animal life have been self-developed, under the influence of external circumstances, and by the stimulus of internal desires, from those germs of being, whose origin and constitution must puzzle the boldest speculator. An animalcular globule, for example, finds itself hungry, and with long and patient effort develops a mouth and digestive apparatus. Pursued by other hungry animalcules, it either puts out a tail or other propelling apparatus to enable it to swim away from its enemies; or, in the cold perspiration of fear, it secretes a shell to protect itself from their voracity; or, if gifted with courage and a belligerent disposition, it grows weapons of offense and defense. Encouraged by the success of such efforts, and expanding with ambitious desires or pressing appetites, these self-made people of the seas become fishes, and then lengthen into sea-serpents, or thicken into whales. Some, taking a fancy to an agreeable promenade on shore, grow themselves legs, and become ichthyosaurs and alligators. Of these, some find their big, unwieldy tails an inconvenience, and they drop them, like the tadpole when it becomes a frog, or let them dwindle into slender and genteel caudal appendages; while lengthening their legs, and developing a few other trifling capabilities, they become cows, horses, donkeys, and other mammalian quadrupeds. Others, with more volatile aspirations, change their scales into feathers instead of hair, and their forelegs into wings, becoming owls or eagles, herons or humming-birds, according to their several fancies. Where grass is plentiful, crocodiles would naturally become buffaloes; but as these wander off into forests, where grass is scant, and they are obliged to browse on the branches of trees, reaching higher and higher, their necks and legs gradually lengthen, and the humpy little buffalo stretches up into the stately giraffe. Others take to bristles, and root

and revel in the luxury of snouts, ambitious of the glories of prize-porkers in Baker-street bazars. Strangely dissatisfied with even these huge dimensions, they go on expanding in bulk and lengthening in snout, until they stalk before us the elephants of Astley's and the menageries. Cowardly-spirited animals develop good legs for running, as the elk or the antelope; while the fierce and brave get to themselves savage claws and teeth, and, despising herbage and fruits, adopt an exclusively carnivorous diet.

Living in tropical forests, where lofty trees are covered with delicious fruits, animals with hoofs or clumsy paws would try in vain to climb them. But in a few generations such wishes and efforts change the hoofs and paws into hands, expressly adopted to climbing trees and plucking their fruits; and nature rejoices in many tribes of monkeys, of various sizes, colors, and forms, according to the varying aspirations of their self-creating and industriously-developing progenitors. Some of these human approximations cultivate their tails, and find them both useful and ornamental; but the larger, stronger, graver, and more dignified of our four-handed relations get tired or ashamed of these ridiculous appendages, which straightway shorten, and then disappear. We have come now to the chimpanzee and gorilla. They have four hands and "nary" tail. It occurs to some of the more enlightened of these gentlemen of the forests, that if they were to lengthen their hind-legs, and walk upright, it would improve their personal appearance. The posterior hands gradually subside into feet, their thumbs become great toes, and, *voilà!* MAN walks upon the scene; and we have only to carry the developmental process a little further to account for the existence of all the human races. Soon a Homer sings, a Plato reasons, a Demosthenes thrills us with eloquence, a Praxiteles gives us ideal beauty in marble, a Phidias makes it glowing with the colors of life. Science, Philosophy, Poetry, Art, are the glorious climax of development, until after ages of progress, a Du Chaillu finds, and a Spurgeon improves upon, the wonderful animal whose aspirations made him the transition-link between the brute and human results of the theory of development.

It is a nice theory, and has only a few slight difficulties. It requires a potent

intelligence in each individual form, molding the physical, and gradually changing it in correspondence with its own growth and aspirations. Atoms of unknown origin, self-expanding through successive generations, by growing necessities, or desires, or caprices, until they become sharks or whales, geese or nightingales, rats or elephants, kangaroos or gorillas, open to us a view of animated nature which some may consider sublime, but which to us seems full of absurdities.

It is quite true that man has existed since the period of records and monuments without much change in his physical conformation, and with the same striking differences of race that now exist; but the same is true of the whole animal creation. Horses, dogs, cats, sheep, camels, lions—all birds, beasts, fishes, and insects—have been the same as far back as we can trace them. Other races have existed, and become extinct; but we find no marks of transition into the existing races. In three thousand years there have been no such changes. There is nowhere the slightest appearance of the lower forms of life changing to higher. The oysters on our coast are doubtless the same coppery bivalves that they were when Julius Cæsar made his first meal off them upon the sands of Dover; and the donkey in our streets, drawing his load of cabbages, is no improvement upon the beast that gave a lesson to Balaam. If the law of development ever existed, it must have ceased to act some thousands of years ago. Progress has made a halt, and all animate existences have forgotten their aspirations.

It is true that no man can stand before a cage of monkeys, or see a cleverly-trained one exhibited in the street, without an awkward feeling of possible relationship. The imitation is too close to be agreeable. But when a careful comparison is made, this feeling vanishes. There is a wide difference between the highest type of the Caucasian and the lowest Bushman or Australian; but he who pretends that the lowest human being that walks the earth is a nearer relation to the gorilla than to himself, has not given the subject a proper examination. He should go at once to the British Museum, and inspect the skeleton, and particularly the skull, of the gorilla. It is the head of a beast. Its brains are not one fifth the size of the smallest normal human brain

ever exhibited. Its skull is more like that of a tiger than of a human being. With the first look at the naked skeleton all idea of relationship vanishes. It is true that there are other specimens of the monkey tribe, with larger brains in proportion to their size; but there is no resemblance which can give one moment's support to the idea that any ancestor of Homer or Shakspeare was ever even a chimpanzee. Place the skulls of all the varieties of humanity side by side in a descending series, and we find a well-marked gradation—an improvement from the lowest to the highest, or a degeneration from the highest to the lowest. Now, by the side of the lowest form of the human head place the highest that ever existed in the dumb races that mimic humanity so execrably, and you have, instead of a single step in a gradual series, an immense gulf, which it would require a long chain of gradations to fill. In one you have a man, gifted with speech and reason, capable of education and improvement, with an intellect which can expand until it measures the stars and invents systems of ethnology; in the other a brute, which can never be capable of human speech, or reason, or faith: a cunning brute, perhaps, but not equal to the dog, or horse, or elephant, either of which would be for us a more respectable relative than the finest specimen of the four-handed favorites of the Zoölogical Gardens.

But let us return to the question of races, which does not necessarily depend upon the theory of development. What are the reasons for believing that humanity is one, and that all men are descended from a single pair? As religion is a matter of faith—though it must, of course, be consistent with reason, even in its higher sphere—we leave it out of the question. It may satisfy ourselves to settle a scientific question by the authority of Scripture; but we have no right to require that others should be satisfied with the same authority. The first scientific evidence which we should offer of the unity of the human race is the fact of the universal recognition of such unity. Beneath all varieties there is a "human nature," in which all men feel themselves to be united; one touch of which is said to make "the whole world kin." This feeling or instinct of relationship is a proof of no trifling value. A more tangible argument

is found in the evident relationship of human languages. However we may account for a single race speaking two thousand different dialects, it would be still more difficult to account for the similarities of structure, and even of words, in the languages of different and widely-separated races, having different origins.

Universal tradition is a fact of great power. Every nation which has preserved traditions, has some which can be traced to one original. The tradition of a deluge, for example, has been found in Asia, Africa, America, and Polynesia. There can scarcely be a greater proof of identity of origin than common traditions.

The intermingling of races, and the formation of new and persistent types by such intermixture, if it can be demonstrated, is a physiological proof of unity of race which can not be disputed; but this persistence may not be considered as sufficiently established. Every instance brought forward will be claimed as another original type or species.

But the great difficulty in the whole subject, as a scientific question, is, that it carries us out of the range of science and out of the sphere of reason. The creation of man is a miracle. The division of man into races may be a miracle also. And a miracle is something beyond our power to explain or scientifically investigate. Science informs us that there was a time when man did not exist on this planet. We can not see that he had any power to make himself, either from the dust of the earth, or from an animalcule or an oyster. The Power and Wisdom which could and did form the intellectual, moral, and physical nature of man, has, without question, the ability to change his character, external, and internal, directly or indirectly, at any time; and it is just as reasonable to suppose that the Almighty, after the creation of a single pair, changed certain persons of their progeny into the types of the existing varieties of the human race as that he made as many different creations. Either one process or the other may be predicated of Omnipotence; and we may as well accept the theory which is consistent with Revelation, with universal tradition, and the common instincts of humanity as one that makes us remote descendants of the toad or crocodile, and near relations to the chimpanzee and the gorilla.

From Fraser's Magazine.

DIFFUSION OF GASES IN RELATION TO SOCIAL LIFE.

THERE are few subjects on which the mass of intelligent and observant persons are more agreed than that science, in all its departments, is progressing with a rapidity and success unrecorded, if not unequaled, at any former period of the world's existence; nor is it hardly less universally acknowledged that this progress does not rest, as a mere evidence of the astounding capability of man's mental powers to search after and unravel the mighty mysteries of nature's hidden things, but develops itself into practical working, not only challenging the admiration of mankind in its more prominent and obvious features, but unobtrusively insinuating itself into the most ordinary and insignificant acts of every-day life. Nor will it escape the notice and admiration of the friend of social improvement that, disconnected as the results of scientific research may be in their individuality, one single principle forms a bond of relationship and stamps an unity on the whole, a growing tendency to press every suggestive theory, and, above all, every determined fact, into the amelioration of the condition of man, alike as a means of mental culture, and especially of physical improvement to the population at large, where science, to be useful at all, must be brought to bear directly upon the urgent claims of bodily wants.

To chemistry and civil engineering we are mainly indebted for the prodigious advance which the last few years have witnessed in the means and appliances necessary for securing to man those conditions which are essential, first, for the development, and then for the conservation, of his natural capabilities; and especially for shielding him from the noxious operation of those influences to which society, in a civilized and congregated condition, must ever be subjected. To the higher department of chemical research, in its economical and physiological applications, we owe our knowledge of the circumstances under which the

functions of life are most favorably developed, impaired, interrupted, or totally arrested; whilst the civil engineer, calling into action precisely the same principles which have unfolded facts to the chemical philosopher, is enabled, on a greatly exaggerated scale, to produce identically the same results; concealing what is unsightly, expanding what is useful, destroying or removing what is noxious, thus causing human life to be of longer average duration, bringing whole districts otherwise uninhabitable under the dominion of man, banishing squalor for cleanliness; putrid miasmata for wholesome respirable air; and, regardless of all distinctions, diffusing health and cheerfulness, from the prince's palace to the peasant's cot.

Nor is it surprising, that in proportion to the practical importance of the advantages to be attained and the vast range of subjects it embraces, a general desire should be manifested by the public to inform itself respecting them, in such a manner as shall enable the community at large to coöperate with and forward the designs of those who have originated plans for the furtherance of the great objects contemplated; and, indeed, to the want of this information we may almost exclusively trace the tardiness of some corporate bodies to avail themselves of the inestimable advantages which scientific research offers them, as well as the actual prejudice and opposition manifested by the lower classes against improvements from which they are themselves to obtain the greatest share of benefit. And the more is this to be regretted, as the benefit can not be obtained in its completeness but by unanimous coöperation; a fact recognized by the legislature, which has wisely, so far as possible, rendered such coöperation compulsory, though there must of necessity be a large number of cases to which its enforcements can not reach, or where they can be easily evaded. Still, however, it is an encouraging fact that the more intelligent portion of the

community is at length fully roused to the importance of the subject, and that the means of information are at hand and accessible to all who may desire them, varied also in form, and adapted to the requirements demanded, from the more costly scientific treatise to the popular tract. But it necessarily happens that, in the latter of these, there is danger of superficial generalities excluding from notice matters of apparently a trivial nature, but which really embrace the most essential considerations, both in a theoretical and practical point of view.

Such is the case with reference to the subject which stands at the head of this paper.

Few are ignorant of the fact that fluids may be conveniently classed under two heads—those which admit of being placed in closed vessels, but resist any attempt to compress them into a smaller space than they originally occupy—or, at any rate, into a space appreciably smaller, in the ordinary acceptation of the term; and those which, readily yielding to pressure, can be compressed into a space many times smaller than they originally occupied, again expanding to their original dimensions when that pressure is removed. These latter bodies are familiarly denominated gases.

It may, in addition, be known that many of such bodies exist, that they have distinguishing characters, that they may be mixed together mechanically, just as ordinary fluids are capable of being mixed, each retaining its specific characters; or caused to combine in such a manner that new products arise, endowed with new properties, both chemical and mechanical, totally different from either in an isolated condition. It may even be recognized as a familiar truth that the gases, when placed in contact, *can not remain separate*, but manifest an uncontrollable tendency to unite, until of two separate gases one perfectly homogeneous atmosphere occupies the whole of the receiver in which they are confined. But few recognize this property as one of vast practical importance, forming the very key which unlocks the mysteries of many common phenomena, originating a large proportion of the inconveniences which interfere with social comfort, and not unfrequently determine the existence of life itself.

The object of this paper is simply to describe this last-mentioned property with

as little technicality as possible, and show the importance of recognizing its practical relations. For the sake of brevity, also, we proceed at once to mention the gases which will be principally alluded to, enumerating such of their leading characteristics as may present themselves in the course of our inquiry, and, in the first place, of oxygen and hydrogen.

These are two gases with which few are unfamiliar, recognizing the one as a powerful supporter of combustion, being itself incombustible; the other endowed with totally opposite attributes, itself capable of being ignited as it proceeds from a jet or other small orifice, while it instantly extinguishes a taper plunged into it. Most persons have witnessed the combustion of charcoal in oxygen—the brilliant scintillations of iron wire when introduced into it; and the dazzling, almost solar light, thrown out when inflamed phosphorous is surrounded by an atmosphere of this gas. The peculiar small blue flame with which hydrogen burns, and the slight explosion which takes place on plunging a lighted taper into it, are also presumed to be well-known phenomena. These two gases are amongst the most important æriform bodies with which we are acquainted, and are more or less identified with every condition which controls the permanence of healthy progress, and indeed the very existence, of all those functions which in the aggregate are included under the term *life*; and they hold this prominent position in consequence of their being essential ingredients in a series of compounds necessary to the support of every animate body, both animal and vegetable.

We all know also that without the presence of atmospheric air we can not live; and we shall presently see how directly all the powers of life are influenced by this compound of oxygen and nitrogen, and also how an almost infinitesimal amount of contamination with other gaseous compounds, continued for an adequate time, is sufficient to suspend or even destroy vital action. Of these gaseous bodies five are of primary importance, and indeed stand at the very threshold of all the abstruse problems which organic chemistry has, within the last few years, so satisfactorily solved; and the student will do well to pause and make himself familiar with their properties and habitudes before he enters upon

the vast field of inquiry which this interesting department of physical science unfolds.

For our present purpose, however, it will be sufficient to give such a general description as will enable us to understand the main property we have in view — the tendency of these gases reciprocally to insinuate themselves into juxtaposition with each other, and having done so, the influence they exert in reference to social life. These bodies are carbonic acid gas, carbonic oxyd, carbureted hydrogen, sulphureted hydrogen, phosphureted hydrogen, and, lastly, bi-sulphuret of carbon, which, though not a gas, is a highly volatile body, and at a slightly elevated temperature acts as a gas in becoming diffused through the atmosphere.

Now, the first of these is well known to most persons as the air which sparkles up in such liquids as soda-water, champagne, etc., and causes them to effervesce; it is composed of carbon, of which charcoal may be taken as a rough type, and oxygen in certain invariable proportions, not as a mere mixture, but as a chemical combination, effecting a total change of character in the new body which retains but few properties in common with either of the original elements. The *rationale* of these changes is explained in any manual of chemistry, and we must not here dwell upon it. Another property is also familiar to most — its tendency to impede respiration, or, as many would say, to stop the breath — and this phenomenon claims note as a most wise premonitory check to its free inhalation. A spasm is, in fact, produced in the throat, which in due time closes and forms a most powerful valve to prevent the deleterious effects which would result from the admixture of even a small quantity of carbonic acid into the lungs.

Let us now proceed to the next compound — carbonic oxyd. This, again, is formed from carbon and oxygen, but contains only half the amount atomically of the latter. The properties of this body vary considerably from the former, the principal difference which we shall select being that the former is combustible and extinguishes flame, whilst the latter burns with a blue flame in the presence of atmospheric air. They are both highly deleterious, the latter espe-

cially, as it is more subtle, and furnished with no warning indication of its presence.

We have next to deal with another class of gaseous compounds, in which *hydrogen* instead of oxygen forms an essential constituent. Thus, we meet sulphur combining with hydrogen to form sulphureted hydrogen gas, and by substituting for sulphur, carbon and phosphorus respectively, we produce carbureted and phosphureted hydrogen. But before enumerating the distinguishing properties of these hydrogen compounds, it will be advisable to refer to the sources from which they are derived in the course of that unceasing interchange of elements which we recognize as marvelously characteristic of organic life, in contradistinction to those changes which occur in mineral bodies, or which may be elicited from properly directed chemical operations in the laboratory.

We start, then, with the fact that all organized forms which are capable, under suitable conditions, of performing the definite functions for which they were obviously adapted, do so in virtue of the inherent property which they possess of causing their individual elements to change their mutual relations and originate new forms; indeed, in many cases, it is apparent that the function which the organ is destined to perform consists in the very act itself of producing these, very properly designated, molecular changes. To take a simple instance. Suppose a body to consist of oxygen, hydrogen, and carbon, with oxygen in considerable excess. As we know that these are capable of combining in a variety of ways, we may infer that the homogeneity of the substance may be broken up, and that the elements may pair, in the one case oxygen combining with hydrogen to form water, whilst another portion of oxygen combines with carbon to produce carbonic acid gas. The assumed organized body composed of oxygen, hydrogen, and carbon, capable in that condition of performing acts of life, has then been, so to speak, broken up into two bodies which have stepped out of the rank of vital agents; and this is, in fact, a change constantly occurring in a large class of organic groups. Let us now imagine that a body standing still higher in the list of organized forms is composed of oxygen, hydrogen, carbon, and nitrogen. These,

again, we know are capable of combining in pairs; and if certain proportions of the elements are present, we may find the oxygen and hydrogen uniting to form water, another portion of oxygen with carbon to form carbonic acid, and another portion of the hydrogen with nitrogen to form ammonia. Or we might suppose the change to progress still further, and that another portion of carbon combines with oxygen to form carbonic oxyd, whilst another portion of carbon unites with hydrogen to form carbureted hydrogen gas. Thus, from one homogeneous body, we have in one case deduced three, in the other five, sets of pairs or binary compounds, and legitimately so, as these are not mere hypothetical changes, but amongst the most familiar to those who are engaged in studying the phenomena of life by the aid of organic chemistry.

But we must now advance to a still higher group, which, in addition to the elements we have enumerated, assume two others — sulphur and phosphorus — and it is these most important and highly organized forms that we shall be principally concerned with, when we come more especially to trace the results of their decomposition, as having become gases, and submitted to the process of *diffusion*. Not, however, to forestall what will more conveniently be treated of as we advance, let us recognize the capability of an organized form made up of these bodies, and in such a way as shall constitute an instrument fit to perform specific duties under the influence of vitality, to become disintegrated, and in the act of breaking up, to rearrange its ultimate constituent parts or molecules into pairs in a manner precisely analogous to the process already alluded to. We have clearly the materials before us to form the following binary compounds — water, from the union of oxygen and hydrogen; carbonic acid, from carbon and oxygen; ammonia, from hydrogen and nitrogen; sulphureted hydrogen, from hydrogen and sulphur; and phosphureted hydrogen, from hydrogen and phosphorus. We may in like manner have carbonic oxyd and sulphuret of carbon from an obvious mixture of their respective elements. Now, it is an error to imagine that there is any thing arbitrary in such assumptions, for they are warranted by the very substances actual-

ly placing themselves before our eyes during the decomposition of animal and vegetable forms, which decomposition is nothing more nor less than the unfolding of the processes we have mentioned. Or, if not rendered perceptible to the senses, the hypotheses assumed are in perfect accordance with nature's operations and the fair consequence of legitimate deduction. It is true, that over a very extensive range we have our senses to appeal to, and to check any danger from speculation; demonstrative evidence of this kind can not but be conclusive. We should, however, be excluding ourselves from the knowledge of most important practical facts if, with a due regard to the nature of the materials we are working with, we were altogether to banish moral or probable evidence from our researches. If it be fair to recognize the fact that a planet is perturbed from what should be its normal orbit, and then, assuming that this disturbance can only arise from another undiscovered planetary body, to proceed with a variety of probatory calculations as to the position in which that disturbing mass must be located, and with what amount of mean attraction to produce this disturbance, it is equally legitimate to take hold of any of the numerous facts within the range of vital force, and explore the conditions which must be fulfilled in order that the observed phenomena may be brought about, always remembering of course, with the utmost jealousy, to observe the line of demarkation between probable and demonstrative evidence.

But to return from this almost necessary digression. We have now added to our list two other compounds which will shortly be viewed as operated upon by the property of diffusion, and briefly describe their principal characters in order. Thus:

Sulphureted hydrogen is a most offensive gas, not unfamiliar to those who have visited Harrowgate or any other of the numerous sulphur spas. It is not only offensive but, even in moderate quantities, highly injurious; in large volumes, fatal to life. The sensitiveness to its influence seems to vary in different animals; it is stated on good authority, that a horse is injuriously affected by it when diluted with some thousands of its bulk of atmospheric air. Its presence may also be inferred from its tendency to

blacken silver and some other metals; the principal property, however, which will come within our subject is the one above stated.

Phosphureted hydrogen.—Those who have not engaged in chemical pursuits may not be so familiar with this as the preceding gas, although, together with that, it is freely evolved during the decomposition of white of egg and its analogues, generally known as albuminous bodies; very copiously, indeed, by putrifying fish. It is most poisonous when brought into contact with blood; and the writer has reason to believe, from observation, that during the raging of epidemic cholera, this gas, evolved by putrid fish on the sea-coast, and introduced in the animal system with stale fish as food, is a powerful agent. There are various other interesting properties of this gas, as prepared in the laboratory, but we shall confine ourselves to its influence on vital functions.

Carbureted hydrogen.—This light and inflammable gas is one of very evil repute, and constitutes the fire-damp so fatally known in the coal districts; when mixed with from eight to ten volumes of common air it explodes with awful violence, forming highly-expanded steam and carbonic acid gas, with which we are already familiar; thus the unfortunate miner is in peril of being blown up, with all its concomitant dangers of falling materials, etc.; and should he escape injury from these, he is frequently smothered with carbonic acid gas, or choke-damp, as it is locally called.

The last body to which we have alluded, bi-sulphuret of carbon, is, as its name implies, a compound of carbon and sulphur. Unlike those we have mentioned above, it is a fluid, though very volatile, and of a most offensive odor; this is also a common product of decomposition of all organic bodies which contain its elements, at a slightly elevated temperature, and in consequence of its volatility, diffuses itself through the air, in some cases very materially vitiating its purity; our inquiry would therefore be incomplete without recognizing its presence.

But, in addition to the properties already assigned to these bodies, we must observe that they differ in density; that is to say, the same volume of each represents a different weight. Thus, for example, carbonic acid gas is much heavier

than atmospheric air, and if generated in a closed vessel filled with ordinary air, will displace it, though if left in contact for a short time, both will become mixed, in consequence of the principle which it is our object to explain. We must previously, however, allude to another very observable property common to all gases; not only do they manifest a tendency to mingle with each other when brought into actual contact; but if separated from each other by a membrane, such as a piece of bladder, the union still proceeds with great activity; if, for instance, we fill a small bladder with carbonic acid gas and place it in a large vessel containing atmospheric air, we shall in a short time be able to show that the carbonic acid gas has passed through the bladder and mixed with the atmospheric air: an action much accelerated by previously moistening the bladder. The relative rapidity with which gases of different density pass through membranes, however, varies considerably; thus the fumes of ammonia pass through a moistened bladder two and a half times more rapidly than sulphureted hydrogen, five and a half times more rapidly than carbonic acid gas, *one hundred and sixty times* as rapidly as carbonic oxyd. Let us pause to consider the vast import of this fact in relation to the animal economy. We are constantly receiving into our lungs fresh portions of atmospheric air, and expelling from these organs successive portions of moist, heated air, commixed with carbonic acid gas.

The blood, on the integrity of which our very existence depends, is only separated from the air we breathe by a membrane of the greatest tenuity; through this membrane, which is always moist and warm, and consequently in the most favorable condition for promoting the action above mentioned, the air and blood are perpetually reacting upon each other; provided the air be uncontaminated, the natural function of respiration proceeds naturally and pursues a healthy course; but if it contain any other gas which is capable of vitiating the blood, this fluid can not escape its influence, for we have every circumstance at hand to favor such influence with the utmost intensity. Now, it unfortunately happens that the gases which are most fatal in their operation on the blood are those which are most apt to be present in the atmosphere. All na-

ture is in a state of perpetual change; all organized forms are constantly undergoing decay—that is to say, resolving themselves into those binary compounds to which we have so frequently alluded; no animal matter can pass into a state of decay without evolving *ammonia* and *sulphureted hydrogen*, which pass through the walls of the membranous air-cells with the utmost rapidity, and, acting upon the iron in the blood globules, at once destroy their vitality. Beneficently, indeed, has nature endowed these gases with a repulsive and penetrating odor, which at once indicates their presence and causes us to avoid them. But this only happens when they are present in comparatively large quantities; where, as in densely populated towns, we have the air always contaminated with some of these deleterious products, even when not ordinarily appreciable by the senses, the very countenances of the inhabitants too plainly reveal the mischief going on. It must be remembered, too, that another element is present which dare not be left out of the account—the element of time. We may well imagine that a person, exposed to an accidental emission of poisonous air for a short time, who is again at liberty to inspire that which is perfectly pure, may be casually affected, and that the elastic and regenerating influences of vitality may speedily repair the mischief done. But, where foul air is always present and constantly inspired, its baneful action will soon be developed, even when the quantity is infinitesimally small. It is indeed by a proper estimate of the value of these phenomena alone that we can hope to rouse society to the importance of what are usually denominated sanitary operations; it is also by the proper application of the scientific facts of the case alone that we can expect efficiently to counteract the evils that will ever accompany the progressive march of civilization.

We have already alluded to the tendency of all gases to mix themselves when brought into immediate contact with each other; and to what has been premised, we may add that they do so independently of their specific gravity; for if a vessel—a bottle, for instance—we are acquainted with—hydrogen—and another with carbonic acid gas, which is much heavier, and these two vessels be connected by a narrow tube, in-

verting the first-named vessel over the other containing the heavier gas, the carbonic acid gas, notwithstanding its far greater weight, will intrude itself into the upper vessel. It is clear, then, that the *rational* of this union can not be explained by reference to the gravity of the respective gases, nor yet by another hypothesis which has been suggested—that the one gas acts as a vacuum to the other; and we are indebted to Professor Graham for a most lucid and interesting research which satisfactorily proves the existence of a new force, which he has designated the “diffusion of gases;” it is this principle, too frequently disregarded, indeed barely recognized as operating on an extensive scale, that specially claims our attention in reference to the practical details of this paper.

Let us now briefly advert to the remarks already made upon the formation of certain binary compounds, in reference especially to their origin, and the order in which they most generally make their appearance—*whence* and *how* do they arise?

All organized forms are so constructed that, under the influence of vital actions, or, in simpler terms, during the presence of life, they are disposed to perform certain appropriate acts or duties; but action and reaction are always equal and opposite; during their activity, and in exactest proportion to the amount of exertion, they become exhausted; not merely so, the very continuity of their component parts is dis severed, and, instead of acting together as a whole, the minute particles or molecules of which they are composed stand aloof the one from another, and manifest a tendency to submit to other influences which, as an united whole, they were capable of resisting.

Take, for instance, the animal muscle; after a certain amount of exertion, it becomes almost paralyzed, perceptibly less rigid, and loses in bulk. This muscle is a most highly organized body, and comprises in its composition all the different elements we have had occasion to allude to. During its action, every effort renders it more unfit to act; after a time, rest is absolutely necessary to recruit its strength, and enable it to re-acquire its capability to act; and for this reason, some portions of this muscle have disappeared, and what were before highly organized portions, have become indifferent to the vital force—have, in fact, stepped

out of the list of the living forms and become rejected from the organism as effete. This happens most frequently in a given order. First: the oxygen and hydrogen retire from service in the form of water; hence, on violent exertion, we observe the increase of perspiration, and, consentaneously with this, the respiratory function becomes disturbed, the breathing is laborious and much increased in frequency, pointing to another defalcation—the carbon is giving way, and departs from the body, united with oxygen, as carbonic acid gas; finally, the nitrogen escapes as ammonia, and the sulphur and phosphorus, in this case, as oxygen salts. But although these products are thus originated, and generally in the order above described, they do not remain so, but, almost universally, meeting with carbonaceous bodies which claim the oxygen, moisture and elevated temperature both being present, the oxygen, both of the water and the salts alluded to, combines with the carbon to form carbonic acid gas; whilst the now liberated or rather liberating hydrogen, in a nascent state, attaches itself to the sulphur and phosphorus, forming, in the one case, sulphureted, in the other phosphureted hydrogen. A vast variety of other cases might be instanced; the one taken has, however, been selected, as containing all the elements which come within the circle of operations alluded to. In all, however, the main result is analogous or identical; what was before an organ capable of performing functions, has stepped out of the category of organized forms, and become effete—in such a way, moreover, as to exert a highly detrimental influence on the organisms that remain intact; and thus:

The balance by which the minutest particles or molecules of all organized forms are kept together, is one of infinite delicacy, and disturbed by circumstances so minute that we have in many cases—nay, in most—no physical means of ascertaining their *presence*, much less of tracing their operations; and it is a fact established beyond all doubt that bodies in an actual state of molecular disintegration, or breaking up of constitution, in the presence of favorable conditions, (generally elevated temperature and moisture,) exhibit a tendency to originate the same changes in other bodies analogous to and in contact with them—sometimes directly, as in most

cases of what is called decomposition, sometimes by intermediate processes of great interest which are yet but imperfectly understood, and claim research. In the every-day occurrence of vaccination, the leavenlike—or, in scientific language, *diastatic*—body introduced, eventually produces results on the living organism differing in no wise from those which it might have induced in many hundred of similar instances, with such a precision, also, that in most cases the period of its manifesting disturbance in the living frame may be predicted to a day, and this not by the introduction of any new elements into the human system, for organic analysis eliminates nothing but those which have been so frequently mentioned, but by exciting molecular action in the living tissues and vital fluids identical with those which were originally efficient in producing the matter introduced, and which will assuredly produce a lymph endowed with power again to propagate the same disturbances through an infinite number of beings. A similar change doubtless takes place in the appalling affection—hydrophobia. A minute particle of diseased mucus inserted by the tooth of a rabid animal into the living body, may remain apparently latent for weeks or months—not really so, however, for analogy compels the belief that all this time it is undergoing insidious changes—until by progressive development the energies of vitality succumb, resulting, we might almost say, in inevitable death. And if such changes uniformly take place through complicated and circuitous operations, with how much more rapidity must we expect them to act when diastatic bodies are introduced immediately into the vital fluid or merely through the intervention of a thin moist membrane, which is known not only to be no protection at all, but rather to favor the imbibition of noxious matter. Never, then, be it forgotten that the presence of life implies death; that the progress of vital function necessarily indicates decay, with its never-failing concomitant, the production of substances obstructive to life and presenting themselves in radiating forms which would, but for wisely provided checks, extend their baneful influences over the whole surface of the globe. It is but a mere question of time. If a noxious gas be delivered into the air, it is no longer circumscribed; but by the law of

the diffusion of gases it will certainly intrude its presence and commingle with the atmospheric air wherever this air is to be found, here leveling all ranks. If unwholesome air be generated in the back streets and alleys of our towns, the very same will intrude into the dwellings of the rich; if, by the putrifying of effete matter, typhus fever be established in the mews, it will certainly find its way into the square. But how vast a field does the application of these views now open out! The crowded assembly, the domestic dwelling, the texture of dress, the very conservation of daily food, all find a claim for notice; nay more, life, presupposing death in the inevitable operation of the principles alluded to, presses a still further responsibility. At a certain period of

human existence, progress ceases; no more renovation of the organism can be hoped for; to hold its own is all that we can expect for a short and useful pause; then comes the end—each day, each hour loses organism without replenishment, and looking forward to those who come to fill our fallen ranks, may we hope that by the application of the views we have endeavored to expound, those ranks will represent, not pusillanimity and weakness, but forms right stalwart and manly, though still imperfect representations of the works of Him who, at their creation, examined all, passed before all in grand review, and announced their adequacy to perform every predestinated function; for behold! *they were very good.*

From the Dublin University Magazine.

BY-GONE MANNERS AND CUSTOMS.

WE are accustomed to descant upon the brief duration of human life; yet within the term of four-score years, to which the life of man is extended in recent times, in place of three-score and ten, as formerly, events unparalleled in number and magnitude may occur. Centuries, for example, have gone by in perfect stagnation, placed in competition with the stirring events which have passed over the head of the present octogenarian. The Registrar-General tells us, every tenth person in this country lives to be eighty, though half born die at twenty years old or under. From the peace with America, which declared its independence, to the present hour, what mighty interests in the destiny of nations as well as individuals have come upon the scene and passed away! Thus, civilization and popular freedom, the arts and sciences, and social amenity, have made great strides; newly discovered lands have been populated, and man has become more exalted in the scale of being, both by increase of numbers and the influence of power acquired

by augmented intelligence. The present time may afford much of mental production which pleases, but little which excites astonishment. Yet, even this has not been destitute of that genius, the brilliancy of whose conversations, if less regarded because less exciting, has not failed to hold its place among those who are qualified to estimate its pretensions. We have much which amuses and little that elevates; while science—serene, severe, solitary, inaccessible to the many—reposes peacefully under the patient law of investigation, amidst discoveries of the greatest importance to mankind. Many more of the present than the past stand upon the lower steps of its sublime temple, executors of that in the origin of which they had no participation, directing themselves to the useful alone.

Some will be found who, lighting upon abstract truths, believe, from inexperience, that their realization is practicable if due efforts are made for the purpose. They do not see that the want of this realization is the cause of all the evil in the

world—a thing to be aimed at by honest means, but never to be more than partially realized. They do not see the opponent forces—the unions of creed, custom, interest, prejudice, and power, that are the intervening obstacles, to say nothing of natural bias. Thus it was with the sect called “Chartists,” who, more earnest for progress than instructed in social history, could see no difference between the principle of political good in the mind and its practical realization in society.

A little time ago people did not give themselves trouble about things to which the lack of education had afforded them no clue. They would set fire to Newgate, or chalk up “No Philosophers” on the walls of their houses, not knowing what it meant; or burn the dwellings of men of science in the name of “Church and King,” when just before they had been hoarse with shouting “Wilkes and Liberty.” The masses then were comparatively rude; they were as a ship without a helm, yawing widely and compassless along. Any poetical pilot would do who chanced to suit their humor. Education, greatly extended to what it was in those days, when it was denounced by men in high places, and discouraged by many of the clergy, in place, as now, of having their support, has taught a different lesson to the people. What if it be not as far extended as is desirable, still its ameliorating effect is evident. The houses of scientific men are not fired, religious opinion is no longer constrained, and rational freedom is better enjoyed by all classes than in any other country in the world. The more immediate object of this paper is a brief delineation of some of the more striking changes within the compass of a life taken in a desultory way, as they occur to the memory.

In England, fashion ever bears sovereign sway. The changes here have been in every way of a most extraordinary character, successive generations not being servile copyists of their predecessors, but, on the contrary, each seeming to delight in its own peculiarities, and in by-gone times tainted with political party insignia. Thus, if the blue and buff which marked the Whig partisans led by Charles Fox, and the beaux who fluttered around his beautiful advocate, the Duchess of Devonshire—the Windsor uniform of blue and scarlet distinguished the friends of

Pitt, but the Lady Graces were wanting there.

The French Revolution, so accurately foreseen by Lord Chesterfield before the event, which did not take place until many years after his decease, was a prediction equally remarkable as affecting the Pope, whom his lordship included in the same category. Napoleon I. broke the spell of the influence of God’s vicègerent, as the revolution had done that of the regality—two great events in the time of existing men. The French Revolution, too, produced a vast alteration in manners, and changed the form and pressure of fashion altogether. This change was not so visible at first among the aristocracy, which kept to its own limited circle, as it was among those who made less pretensions to exclusiveness. With these last the effects of a more expanded mental development soon became visible through the crude efforts made to reconcile existing things a little more with the dictates of reason. At the period when the French Revolution showed its earlier symptoms, and before the vain opposition to it, and the violences that opposition caused, by the European potentates intermeddling, the popular sense had shown a desire for the abrogation of the law which made usage its equivalent without regard to circumstances. To this direction the public mind had been almost intuitively led through the continued disagreement between profession and action, by persons in authority under every European government. Thus, while sovereigns were anathematizing France for commencing her revolution, they were plundering and dividing Poland, of which they had feloniously robbed a brother sovereign. But we must confine ourselves to our own country, or the field will become too extended. The politeness and urbanity which then prevailed have been censured as too artificial; but the habits of a century in good society had made them second nature. Englishmen have at all times been considered too stiff and constrained in their bearing; but at the period to which allusion is now made, the manners of the higher ranks were far more easy and polished than those of the middle classes, who have since approximated more towards them. These, it is true, were conventional, and there was a want of taste in manners—after present

ideas, however scrupulously observed. These too were not rigidly in accordance with a law which is no changeling, let fashions alter as they may. Such dissonances, however, were not relative so much to the carriage between man and man as to the appliances of dress, equipage, and cumbersome court formalities. Invention was racked in order to assimilate body and mind to an agreement in some inconsistent deformity. The shape of a coat was often the completion of an oblique fancy, and men of birth and fortune played fantastical tricks in dress and equipage, while women now make laughing-stocks of them. Commercial wealth could not then compete with the fortune and influence of the owner of broad acres, and the opinions of inferiors were of no moment. The man of consequence was distinguished by his garb from the "nobodies," and not, as at present, by his dialect and bearing. A bilious nabob, a rich merchant, or a parvenu of long purse, only appeared now and then on the public stage to compete with noble exclusiveness. To mingle occasionally with the public was necessary to people of rank, in order to attract their notice, or rather that incense, which to this day is paid to the great man of money in the idea of the small. Revelry was then more rife, and luxury more prodigal and sensual.

Manners and fashions were of the French school, as they had been for a long time before, to a degree which the celebrated Lord Chesterfield, before quoted, highly censured. After the American war was over, the approximation to the French was still greater than before. French princes came over to St. James's, and the upper ranks in England were charmed with the *outré* taste and the refined and unlimited dissipation which distinguished the court of France. The debauched Count d'Artois, afterward Charles X., the greatest profligate in France, among his other accomplishments, learned to dance on the tight-rope. Money was scarce, and the nation impoverished by the extravagances of preceding reigns, but economy was inadmissible. Marie Antoinette, who had married at fourteen years of age, joined Count d'Artois in his extravagances, and lavished large sums among her favorites. At one time the streets would appear filled with waving plumes of the ostrich-feathers with which she decorated her train of car-

riages and attendants; at another, she feasted the more thoughtless and reckless of the courtiers. The king remonstrated in vain. Taxation almost insupportable, and a treasury without a sou, under a course of heartless prodigality, hurried on the terrible event. The courtiers danced and feasted, and rioted over the crust of a volcano that burned fiercely below them, soon destined to sink in beneath their feet, and annihilate sovereign and throne alike, amidst the intensity of its glowing fires.

The court took no heed to those signs of the times which made many thousands sleepless; they were lost upon the doomed Bourbon race—lost as the voice of wail that was heard denouncing woe to old Jerusalem. Thus, it was no sudden convulsion that shook the ancient diadem of France from off the regal brow. The quakings of the earth beneath her palaces, and the rumblings of pent-up fires, were timely heard by others without, but heard in vain within her magnificent palaces.

A singular puerility, or rather mental imbecility, was mingled with every thing. Even vice lost all manliness, and fell into effeminacy; protracted action without an object had exhausted all the energy of the ruling power. Restoratives were vain; even satiety was weary of itself, until the rougher profligacy of the lower orders made that of the higher a matter of commiseration.

The manner of address between man and man underwent little change, because that is a work of time. It continued civil and polite. The hat was always in the hand in addressing a lady by every Frenchman. Respect for the *beau sexe* was kept up even amid the horrors of the Revolution. At Fontenoy, some years previously, the English Guards addressed the French: "Gentlemen of the French Guards, give us your fire!" to which the French Guards replied: "We will not fire first; fire you first!" The same manners remained in Paris even down to the time of the sanguinary Robespierre. During the "Reign of Terror," as it was called, a cart came daily to the prisons to take to the scaffold the condemned of the day preceding. A gentleman was on the steps to take his place, when he perceived a lady was close behind him; she was, like himself, bound on her last melancholy journey. The mo-

ment he perceived how he was placed, he begged to descend, took off his hat, apologized for his precipitancy in attempting to lead the way, and then followed her to the guillotine. This was not affectation, but the habit of politeness common at that time. We remember seeing it among the lowest of the people, when we were there with the allied armies after Waterloo. We fancied we saw less of it twelve or thirteen years afterward. The manners of a true gentleman are innate; and those who try to imitate that to which they are unaccustomed are certain to fail. We take it, there is a still greater falling off in France with those old manners in the present day. The late Duke of York, one of this old school, used to take his hat off if he addressed a woman in the humblest rank of life.

The profligacy among the upper ranks at the close of the last century did not alter the habit of polite intercourse; for even the orgies of Count d'Artois were marked by perfect court manners. These, however, could not affect the course of events. The conduct of this Prince, in endeavoring to excite the Germans to enter France, is a matter of history. It mainly contributed to hurry his brother to the scaffold. The measure, it must be admitted, was an inexcusable treason against France, and he should have expiated the offense, in place of his mild but weak-minded relative, who, it was said, scarcely connived at the treason of d'Artois against his country.

Thus fell together the monarch and the court in the midst of a frightful desolation, wholly denuded of the grandeur that had accompanied the decadence of other empires and dynasties; but the people survived, worn out with the iteration of words and the disregard of things.

The middle class in England had imitated French modes by copying the higher and more fashionable people of their own country. They had not the same opportunity of more directly imitating French vices or virtues. They copied the more fashionable of their own nation, because of those was the party they were anxious to rival or rise to a level with in external appearances.

The destruction of the Bastille—that prison which fixed such a foul stain on the Bourbon race—was witnessed with no small apprehensions by the courtiers here, because it was an omen of more

fearful events to come in the downfall of the system which claimed to rule by divine right. It was to no purpose that a wicked war, declared by Louis XVI. against England without one shadow of a cause, and in aid of her revolted colonies, was alleged as a ground for our non-interference. The dynasty of Louis was to be supported at any cost, and the attempt against the integrity of the British empire was forgiven, for the sake of supporting a principle that is now exploded. This is a matter of history. Lord Hood proclaimed Louis XVII. at Toulon, before he was driven off. The war being that of kings against the progress of freedom, Louis XVI. and America were forgotten. Under such a state of things, manners and fashions could not remain unaffected. Cuts and patterns from Paris began at length to be suspected of Jacobinism. The "notions" of the French court, as the Americans would phrase it, had perished with it. In England the titled and the wealthy grew reserved, seldom appearing as they had done before, being in continual dread of the cry of "Liberty and Equality." French manners suffered for Republican vices. Politeness withered into cold ceremony, where a previous friendship had existed, wherever a taint of liberal principles was suspected. Party feeling crushed candor, and men became suspicious of one another to a degree incredible at the present time.

It must not be denied that some changes effected in the manners of the higher ranks were needful. Vice was not so unblushingly exhibited; dissipation seemed to pause for a moment, as if staggered at the dreadful doom of those whose ill courses, prodigality, and oppression of the people of France, had been too obvious. It seemed as if an awful example of retributive justice had fallen upon a neighbor's household. Men paraded their vices, and incidents of the most equivocal nature passed without reprobation. What a triumph in this respect have the reigns of William IV. and Victoria proved over those of the three first Georges! One prominent vice was gaming. In the metropolis houses abounded, not confined to play alone, where foolish persons staked their money without the implication of fraud, except by ill-fortune, but houses of a double character. Women were openly employed to entrap the un-

wary, and the blandishments of the harlot were added to the temptation of the game. Some of these houses, or other houses differing little from them in character, were more select, and devoted to intrigue as well as play. The grades on a descending scale included the resort of thieves, common and heroic, or, in the latter case, what were of old called highwaymen—a race not extinct in the present century; for to combat them, the coachguards prepared their fire-arms on approaching within forty miles of London. From one of those of the progeny of Macheath we had ourselves a narrow escape once on crossing Hounslow Heath.

Fashionable people opened their houses for play, and some not destitute of rank or title shared in the spoil of those they invited to their routes to be pillaged. These might be deemed exceptions in the class, but such cases were notorious, even among people of title. Few tables were to be found in private houses, where, though the play was fair, the individual of small means was induced to stake more than his fortune would afford. The Prince of Wales, behind in nothing that was fashionable or dissipated, set up a faro-table at Carlton House, where too many honored with princely smiles paid dearly for them—a thousand pounds having been lost there evening after evening by individuals far from possessing wealth to justify it, and by men not professed gamblers. General Arabin, who had partaken in some of the entertainments of the heir-apparent, spoke to us of them in his after-life in very depreciating language.

At the club-houses play was high. Wilberforce tells how that profligate, George Selwyn, who passed for “a wit among lords,” attempted to make him a victim at Brooks’s.

The faro-table, once so common, is now known to few in regard to its mode of usage. The game was called E O. The table was circular, and had a wheel in the center, which turned round horizontally. It contained forty cells near the outer circumference, marked alternately E and O. The banker or keeper of the game played against the company. He first set the wheel in motion, and then threw an ivory ball round the table in such a manner, that upon its motion ceasing it must fall into one of the cells marked E or O. If the ball lodged in E, the banker took all the money laid upon that letter,

and paid all in O to the winner. As the sums staked might be even, and the bank neither win nor lose anything, two of the holes or cells were called “barred holes”—one E, the other O. If the ball fell into one of those, the banker received the money so staked, and paid none to the other letter. At length, competition springing up by the opening of other houses, the sum was at last reduced to half the barred hole. These tables were declared unlawful by act of Parliament, although not more so than other games of chance, as *roulette* or *rouge et noir*. Thus capricious is our legislation, which strains at gnats and swallows camels. E O tables, or roulette, are neither more games of chance, nor more ruinous, than horse-racing, which now exists solely for gambling purposes—the improvement of our breed of horses, for which racing was originally established, having no concern in the matter.

It was to the credit of those who used the E O tables secretly, that the proverb of “honor among thieves” was rigidly observed. Men who lost or won never betrayed the keepers of the tables by information to evade payment, while the modern blackleg will take the money he wins, but if he loses, lay informations.

Immorality was open, and met comparatively little censure in those days. The Prince of Wales, it is true, was cut by the Jockey Club, and the blacklegs of the turf cried out against him upon a point in which his Royal Highness was thought not to have justified himself. Some of the public entertainments, as given in our youth, would startle the present public from its propriety, while they were in themselves of a very inane character. Public and private masquerades were then favorite entertainments, and supported with a license which would put modern manners to the blush. They concealed matrimonial intrigues, and corrupted the morals by an indiscriminate mixture with the vicious. The Hanover-square Rooms, the Pantheon, in Oxford street, and the King’s Theater, were the principal resorts of fashion upon these occasions. They were attended by the Prince of Wales, the Dukes of York and Clarence, and others of the princes, together with a crowd of the noble-born of both sexes, demireps of fashion, and persons of dubious fame. At one of those orgies in the Pantheon fourteen thousand

lamps were lit up, and more than fifteen hundred persons were present, of whom eleven hundred sat down to supper.

Just before the old state of things in Europe struggled with the new, which last, it must be confessed, was a vast improvement, the entertainments given were checkered with political impersonations. Here strutted a mask with a double face, its shoulders enveloped in a cloak, clearly a satirical allusion to the back stairs of the royal residence. On the back of the cloak a ladder was represented, with the words, "secret influence," the person so masked carrying, in addition, a dark-lantern. Another figure was observed followed by a squire, having a label in front, with the words "public ruin," both masks holding appropriate dialogues. Bishops and courtiers were continually personated, both at public and private masquerades, by allusions not to be mistaken. Hence, the taste of that period may be characterized. At one entertainment, the Prince of Wales, his brothers, and the Duke of Queensberry, attended. The last may be remembered by many persons in their younger days, when turned off four-score, sitting in the verandah of his drawing-room in Piccadilly, opposite the Green Park, at such an entertainment, when many distinguished personages were present, with others scarcely less conspicuous among the fashionables of that time. The names of the frail among the fair sex were given at full length in the newspapers most in esteem, as records of similar scenes. On one occasion, at which Lord Cholmondeley presided, the Duke of Orleans was present, and a great number of the nobility and "ladies of high rank and virtue," together with many of the same sex, as frail as fair, friends of the princes. Others of the same description, less honored, attended with their paramours. An expensive supper was served up, at which sixteen hundred sat down. Day had advanced a considerable way before the company departed.

Upon another occasion, at the Pantheon, the Prince of Wales danced cotillions, when he changed his dress of white, blue, and silver, several times, wearing a King Harry hat and feather, with a rich diamond buckle.

At some similar entertainments, remarkable for gross feasting and every kind of luxury, but without wit or vivacity, attempts were made at amusement

by the introduction of the most out-of-the-way diversions. What would now be thought of hiring Italian harlequins to promote laughter, and among other exhibitions for the same end, hanging up unlucky geese by the feet in order to dislocate their necks, amid the antics of those mummers! The character of such exhibitions speaks the feeble mental resources of the fashionable less than four-score years ago, and the great intellectual superiority of the present time.

It is not to be wondered at, that men of intellect sought for entertainment in clubs of a very limited number of members, and avoided a participation in scenes which had not a single reservation to place in the balance against such witless, though fashionable, immoralities. The description of such scenes were given by the papers of that day with much *naïveté*, and apparent unconsciousness of any thing outrageous in morals, or incorrect in manner. A sporting paper of the usual low character in the present day, would describe a ruffianly prize-fight with a similar unconsciousness of its vulgarity. At such or such an entertainment every luxury was displayed, and the company "was disencumbered from the restraints of common life." Another statement says: "Here all was turbulence and dissipation, there all flattery and intrigue." Such were the loose manners, and such the description of scenes of fashionable life, in the much-vaunted moral era of George III. The modest females who stand in the stalls of the present Pantheon Bazaar, are little conscious of the scene of their commercial calling being that of vicious intrigues, heartless follies, and luxurious revelings within the life of existing men. Can a greater insult be imagined to the noble dames of the court of Queen Victoria, than to imagine them congregated in such a society, although princes were the patrons of such scenes! It would scarcely be credited now, that such servile and adulatory worship should have been paid to men of any rank, much less lead the noble dames of England into a self-degradation of which those of the present day would resent being supposed capable. The present time shows nothing as exceptional as this in any rank or station.

But for bad taste in most things, the foregoing time was equally conspicuous. Costliness was found without regard to elegance, and frivolity ruled the

hour. Fashion exhausted seemed to have come back to second childhood for its regulations and adornments. Ranelagh and Vauxhall were then in their glory; but the first closed about the commencement of the present century, and the second lost all its former attractions before a score of years of the same era had passed away.

Ranelagh, not long before that event, was the scene of one of the most splendid entertainments ever given in this country by a foreigner. The French ambassador gave an entertainment there to Queen Charlotte and the Princesses, in which great cost was incurred for trifles. It was very characteristic of French taste in such displays. A host of operagirls were dressed out as shepherds and shepherdesses, with cornucopias in their hands, singing pastoral ditties to a lady who looked like any thing but the goddess so honored. Sprawling angels, genii, and allegorical transparencies, eked out the show of heathen deities and London opera-dancers; but, then, who could question the taste of the age of Le Grand Monarque?

The Spanish ambassador, not to be outdone, transformed all Ranelagh into a Spanish camp filled with tents, and at the entrance of every tent a page in full uniform. The celebrated gallery was converted into a temple of Flora, and the orchestra into a pavilion, lined with white satin, having a heavy gold fringe. Within the pavilion a table of eighteen covers was laid for the Queen and royal family. In front of the pavilion was a stage for the Spanish dancers, with their castanets. There were lotteries open, with trinkets for prizes, such as jewelry and watches. Women waiters attended, habited as shepherdesses, with garlands of flowers; and they, not very consistently, handed round tea and coffee, according to the modern notion of Arcadian times. One hundred *valets de chambre*, in scarlet, the seams of their coats decorated with gold lace, and lined with blue, and also waistcoats of blue and gold, attended upon the company. Upon these valets in scarlet, a hundred footmen, in blue and silver coats and waistcoats, attended. Fireworks, pastorellas, dryads, and nymphs, attended, on all sides, to stimulate Elysium, amid the murky atmosphere of London. Between three and four in the morning, splendid suppers were served up, that

at the royal table on a service of pure gold—the table-cloth alone cost a hundred guineas. An ode of more than laureate doggerel was sung, and the expensive and tasteless entertainment concluded.

The scene of these revels, the once-renowned Ranelagh, had in the center a rotunda one hundred and fifty feet in diameter, and neither devoid of elegance nor novelty. It held numerous boxes for the company. There was a promenade round the circular orchestra in the center. Tea, coffee, and refreshments were served during the concerts. Public breakfasts were often given there; and masquerades neither remarkable for good taste nor morality.

No expenses were spared in purchasing whatever could be acquired for the entertainment. At the Knights' Gala, one of the latest given, two thousand five hundred persons of the first class shared the hospitality of the house. A guinea the pound was paid for cherries, and fourteen shillings a quart for green-peas. The entertainment cost seven thousand pounds. Court dresses were worn upon the occasion.

We are thus more minute regarding Ranelagh since its sun has so long set, and its sweet singers are among the dusty dead. Even its site is so changed, that it is difficult to imagine the spot, even in the present century, to have been one of the gayest resorts of fashionable life.

It was before the extinction of Ranelagh, some years since, that changes began to take place in public amusements. The French Revolution was the alleged cause, though Sunday evening riots, and card-parties at home, existed as before. The more exclusive began to talk of the people as the *canaille*, and to affect a dread of leveling principles; and that, too, while the mob was shouting in obedience to its superiors almost any thing put into its mouth. The highest classes in those days were not remarkable for gratitude. The upper orders, that had copied so many of the vices of the French court, vices which accelerated the Revolution, became alarmed lest the people of England should in their turn take up revolutionary ideas. They attributed the cause to a decrease in popular ignorance, and to the writings of the French philosophers. They paid no regard to the means by which, in the present day,

men arrived at just conclusions, because their sole rule was policy and not justice, prejudice and not reason. They dreaded whatever militated against a cherished fallacy, or a remote interest, while a want of moral courage was a remarkable trait in their conduct.

After the tragic scenes in France, and the atheistical avowals of some of the leaders in them, the upper orders here, ever in extremes, and lately so lax in morals, suddenly pretended an extraordinary zeal for religion. From a great laxity of manners and morals they went, in profession at least, to the opposite extreme. The pulpit resounded with anathemas against France; and the most dissolute princes in Europe became objects of their sympathy—*pontifex, rex, lex*, was the cry. The dissenters were pronounced to be tainted with Jacobinism, and Tom Paine was hung in effigy. Those among the nobility and gentry who took a reasonable view of things, who deduced natural effects from obvious causes, were regarded with aversion, and their loyalty hinted away. Those who grieved over the excesses of the Revolutionists, but would not raise altars in their hearts to despotic principles, were slandered. They who had not long before welcomed the dissipated Bourbon princes here, and once shared in their excesses, became on a sudden seized with regard for the morality they had set at naught, prompted by selfish apprehensions alone. The fashions, senseless as they are in relation to dress and equipage, remained in the old French taste, because fashion is ever destitute of principle.

In those points where it would have been advantageous to observe the proverb, *fas est et ab hoste doceri*, on the other hand, the government disdained to imitate the French. The cumbersome and brutal discipline of Frederick of Prussia prevailed as the model of the English army. The idea of copying any improvement which the French introduced into their military system was scouted. Even the pipe-clay, the powder, and long queue, which the French abandoned, were deemed orthodox; and the repeated victories of the French, raw as were their levies, over our troops under the Duke of York, furnished no clue to the real cause. But to return to the more immediate subject,

that of civil life, and particularly of the habits and fashions of the day.

The apprehension of French principles affected a beneficial change in the conduct and bearing of no inconsiderable proportion of the higher classes, whom the exhortations of the pulpit would never otherwise have moved. But even here, in place of referring to the past with reprobation, the clergy employed themselves too frequently only in anathematizing the French, and decrying liberty and equality. The primrose language of dalliance, with genteel views, was only exchanged for political denunciation of the French rebels and Jacobins. In this way some emendation of the previous profligacy in manner was affected, at least more external decorum was observed.

It is the fashion to censure the present time for its licentiousness, and a numerous array of faults have been laid to its account. The worst individual in the existing state of society would feel repugnance to outrage public decency, or disgrace character, as were those matters too common to be noticed among things much out of the way. The days of the Barrymores, or Hellgate, and Cripple-gate, with their sister Billingsgate, are long past. Gamblers and knaves were permitted to bully men of reputation and honor, and provoke them to dueling. Fighting Fitzgerald, who came at last to the gallows, would not now be permitted to enter the society of gentlemen, intruding where he was detested and feared. Major Baggs and Tiger Roche would not have run a similiar course to that which made them both feared and despised. Public opinion itself would have set them down in the present day. Bishops do not put on plain clothes now to ogle opera-dancers; nor imagine a glass door between themselves and the orgies of princes can justify a profanation of the episcopal garb.

In the present day the higher classes have occupied their places with that kind of feeling and conduct which commands much more respect. Even monarchs have been demonarchized in those countries most advanced in civilization and freedom. They are in future to rule solely for their subjects, and by their free choice, in place of their own indisputable right, accountable for their actions to God alone. How much more powerful such a principle ren-

ders a throne, the example of England abundantly proves. She owes to it her extended population, her unflagging energy, her vast resources, and the fixedness of her free principles.

The manner and address of the mass of the people are much more advanced, and a kinder intercourse and more genial spirit prevail in every class, and more developed as education becomes extended. There was nothing like this before in the period to which the present observations primarily refer, and hence the increase of the power and wealth of the country. Our rapid improvement has kept pace with the enlargement of the bounds of civil liberty, of trade, and of opinion.

One of the things most dependent upon manners, always capricious and fluctuating, is prominently displayed in dress, though intrinsically of little note. The present aspect of the crowded streets of the metropolis, could each passenger have at his side an individual, male or female, in the dress prevalent at the beginning of the century, or at the time of the French Revolution, what a strange contrast would it present. That of the female world, in particular, luxuriating in tasteless and violent extremes. With the *beau sexe*, the example of France was always held in high estimation. Before the revolutionary war, a doll was sent over from Paris monthly, to be a sort of text by which the fashion in England was to be regulated. All Europe, except Spain, bowed to the same authority. In Spain, until the war for the restoration of Ferdinand VII., the handsome and becoming dress peculiar to the nation prevailed, with slight variations, from the Pyrenees to Gibraltar, among the better classes. Subsequently the fashions of France were seen here and there creeping in, particularly in the capital, setting at defiance national antipathies. In England the French Revolution interrupted all intercourse. In former wars the bitterness of national hostilities was set at naught by fashion, for whether smuggled over, or sent by a circuitous route, the little model, in wood or wax, was permitted to come in. In Mr. Pitt's idea it would seem as if he feared the little image would import with it the principles of the Revolution; and that he declared even fashions from France to be likely to import with them Jacobinical sentiments. Flowers and fashions were dangerous to the British Constitu-

tion if imported in Gallic forms, or crimped *à la Robespierre*, or Bonaparte, for both were declared alike in character, and equally inimical to human and divine favor. No matter, Pitt was inexorable. Jacobinical "notions" must be kept out, and non-intercourse was to be rigidly kept up. Not a columbine nor a doll was to be tolerated, until the Bourbon was restored to the plenitude of absolutism. Even Peruvian bark was declared contraband, lest fever might become too harmless in the Marais, and the villainous dogs of Republicans not die fast enough. Such were the humanities of that day; the present need not dread the comparison. In such times the brightest eyes of the most dazzling British beauty had no weight with Pitt. If the doll had worn a tri-colored dress, there might have been ground for a ministerial objection; or, had the little image been able to support in its model dress a hundred yards of Jacobinical silk. But it would have been a partial thing to admit aught in the shape of costume, though in former wars never refused admission. Thus, too, it was enacted, in order to prevent intelligence of what was going forward in England from reaching the French Government, that any Englishman transmitting or conveying a newspaper to France, should be liable to a penalty of five hundred pounds.* Such was the ignorance of the Government of that time of the real state of the mode of obtaining intelligence. Both on the French and English side of the Channel, smugglers conveyed the newspapers of both countries regularly to each other; and somewhat later the *Times* paper kept a small cutter (so it was reported) to obtain intelligence through the same channel. Napoleon I. told the world, in St. Helena, that he winked at the toleration of the transmission of intelligence by the same means. It was practiced, *sub rosa*, on both sides; but the ministry was all ignorance upon the subject. The interdiction of shapes or patterns for bodices or skirts, or patterns of silks and satins, caps and flounces, cast a gloom over our fair islanders. The more binding the prohibition, the greater anxiety was displayed to evade it, a propensity which persons, who may be supposed captious, attribute to the fair sex. It is true they

* See the act for the regulation of newspapers toward the close of the century.

were patriotic enough to declare they did not care about French textures, except a little crambic now and then. It was the mode, the superior cut, the supreme taste, in which we were deficient, that they so much valued. Fingers accustomed to delineate the line of beauty in Parisian dresses, were now void of direction, and floundered as much in their way as our statesmen themselves in a calling in which they appeared to be sometimes as much at fault as our ladies were of the mode without their manikin.

The attempt to smuggle in a doll, *à la* Holland, it was thought might evade the antipathy of the ruling powers against the *sans culottes*, provided it was kept clear of Dutch latitude in the passage. The Duke of York having been driven out of the Low Countries into Holland, swimming a river to escape the consequence of his bad generalship, Holland fell before the French, and the aspirations of our fair countrywomen were as much disappointed as those of Mr. Pitt and his princely generalissimo. Thus excluded from the capital of taste, wig, cane, hoop, cushion, including hair-powder, and all the paraphernalia of the toilette, ran wild in the usage. Queen Charlotte, not remarkable either for taste or beauty, retained the old defunct state of things at court by her example; Lady Mount Edgcumbe, seated near her Majesty, the wags said, as a foil, being the more ordinary

of the two in person. Thus the court proceeded without feeling the destitution experienced beyond its verge, loyalty in buckles and high-heeled shoes continuing to flourish after the old Bourbon pattern. Thus, too, the emigrants who came over here in shoals, were consoled by greeting traces of the costume of the Maintenons, Pompadours, and Barrys, here, which had disappeared at home. Hoop and farthingale, bag-wig and sword, pigtail and powder, were preserved here, and viewed, as precious relics are viewed by the Holy Apostolic Church, until the better taste of George IV. banished or moderated their extravagance of shape and texture.

The French, after the Revolution, purified and amended their costume, and the court of Napoleon was attired in the Grecian taste. The peace of Amiens placed the Gallic example not only in the ascendant, but within reach; and a few genial hearts were obtained toward the restoration of that which Jacobinism and Robespierre, Pitt and George III. Regent, or his successors, could not do more than moderate; for it is beyond the reach of thrones or subjects to dictate in its regard. One of the Bourbons attempted to change the name of Havre to Port Louis in vain. Fashion, in its whimsical phases, will neither be bounded nor enchained by authority. To compare small things with great, it is like the Press, a chartered libertine.

From the London Eclectic.

M R S . B R O W N I N G ' S L A S T P O E M S . *

ALTHOUGH we so recently devoted several pages to a review of the works of the greatest poet of womanhood, we can not allow this volume to appear and to pass without some words; painful words they must be, since how gratefulsoever we may be for so much received from this pen, we

now shall receive no more: these are the last, and they are like flowers on a grave. We are very grateful to receive poems from the author's own and deeper heart, enthusiast as she was for Italy. We never cared so much for her lyrics of Italian freedom; the tones which will be forever prized are those deep notes, rich and thrilling as if her heart were itself a cathedral, and all the tenderest and most

* *Last Poems.* By ELIZABETH BARRETT BROWN-
ING. Chapman & Hall.

sorrowful experiences celebrating sacrament there beneath the flow of its rich music. When years have made her more distant to her critics, some remarks may be offered upon some of the mental phenomena exhibited in her poems. Sometimes it seems to us that, had she been a strong and healthful, instead of what she was—a weak and suffering woman—her genius could never have borne such rich and refreshing fruit; nay, it might be possible to mark her progress in health and strength by the inverse value of her verse. In her, eminently, the sweetness of the strain resulted from the tightening of the chords. In one of the most remarkable of all her poems—one contained in this volume—she expresses in most memorable words the faith, that the man suffers in the making the poet. Well known as we believe these lines are, we can not forbear their quotation, because they seem to reveal so much of the lamented writer's sense of the personal history involved in the author.

"What was he doing, the great god Pan,
Down in the reeds by the river?
Spreading ruin and scattering ban,
Splashing and paddling with hoofs of a goat,
And breaking the golden lilies afloat
With the dragon-fly on the river.

"He tore out a reed, the great god Pan,
From the deep, cool bed of the river:
The limpid water turbidly ran,
And the broken lilies a-dying lay,
And the dragon-fly had fled away,
Ere he brought it out of the river.

"High on the shore sate the great god Pan,
While turbidly flowed the river;
And hacked and hewed as a great god can,
With his hard bleak steel at the patient reed,
Till there was not a sign of a leaf, indeed,
To prove it fresh from the river.

"He cut it short, did the great god Pan,
(How tall it stood in the river,)
Then drew the pith, like the heart of a man,
Steadily from the outside ring,
And notched the poor, dry, empty thing
In holes, as he sate by the river.

" 'This is the way,' laughed the great god Pan,
(Laughed while he sate by the river,)
 'The only way, since gods began
To make sweet music, they could succeed.'
Then, dropping his mouth to a hole in the reed,
He blew in power by the river.

"Sweet, sweet, sweet, O Pan!
Piercing sweet by the river!

Blinding sweet, O great god Pan!
The sun on the hill forgot to die,
And the lilies revived, and the dragon-fly
Came back to dream on the river.

"Yet half a beast is the great god Pan,
To laugh as he sits by the river,
Making a poet out of a man:
The true god sighs for the cost and pain—
For the reed which grows nevermore again
As a reed with the reeds in the river."

This is one of the most perfect of Mrs. Browning's poems, but its doctrine is not always true. Nor is it necessarily true. True, the pith of the poem is the heart of the poet; true, the poet made out of the man, frequently becomes a sadly self-conscious and spoilt creature; yet we believe this will only be the case with inferior writers who have not much pith to spare. It was not especially the case with Mrs. Browning. If her verse and inspiration ever deteriorated, we trace the deterioration rather to what the world and knowledge of the world have given to her, than to what the exercise and utterance of her imagination have taken from her. The thought is wonderfully expressed; but we hope we may take it as rather representative of a mood of mind in its beloved author, than as the expression of the faith that all those fine natures whose music has enchanted us, became wasted, and spoilt, and impaired in the efforts they made to give freedom to their spiritual being. We even think that in such work the spirit loses its unhealthy self-consciousness rather than gains. Foremost among our sacred poets stands this writer, and there is one poem in this volume equal to any thing we have received from her in this line. A lengthy poem, *De Profundis*, may take its place with *The Sleep*. It is a liturgic strain, of great and painful beauty. It reminds us of those sacred measures which she poured forth from the sick-room in London, where, many years since, to the eyes of her friends, she seemed to lie dying. We must believe it belongs historically to those days before she was either wife or mother, when she was smitten down by pain, languor, and illness, and threatening death, and bereavement in the unexpected departure of the most beloved friends. It is *De Profundis*, out of the depths indeed. It is like one of those rich Mozart Masses; a pained and agonized spirit, respiring on the keys of the cloistered organ, and from

the largeness of the overwhelming grief, to the lesser sharpness of the vexation and the fret, expending its passion, and crying and sighing itself to sleep, upon the spear-pierced heart of the Redeemer. Nothing else can be conceived than that the writing of these words must have been an ineffable refreshment to her. They are of those words which quite disarm all power of criticism by the reverence they inspire for the writer. There come to all men, it is to be hoped, moments when a tortured, and wrenched, and wretched being cries aloud with Elijah: "It is enough; Lord, let me die now." But we do not die, and out of such wretchedness the spirit learns to find its way to its true center and rest. In such moments the brightness and sweetness of nature do not comfort; they even add to the intensity of the misery. Nature helps nature's world; nature ministers to nature's heart; but to such depths as a soul's despondency and despair nature's sunlight and songs can not descend. We are afraid to quote from this psalm of life; we dare not to quote the whole, and we fear to injure the sublime and hallowed effect of the whole. Here is the opening grief:

"The face which, duly as the sun,
Rose up for me with life begun,
To mark all bright hours of the day
With hourly love, is dimmed away—
And yet my days go on, go on.

"The tongue, which, like a stream, could run
Smooth music from the roughest stone,
And every morning with 'Good day'
Make each day good, is hushed away—
And yet my days go on, go on.

"The heart which, like a staff, was one
For mine to lean and rest upon,
The strongest on the longest day
With steadfast love, is caught away—
And yet my days go on, go on.

"The world goes whispering to its own,
'This anguish pierces to the bone;'
And tender friends go sighing round,
'What love can ever cure this wound?'
My days go on, my days go on.

"Breath freezes on my lips to moan:
As one alone, once not alone,
I sit and knock at Nature's door,
Heart bare, heart-hungry, very poor,
Whose desolated days go on.

"I knock and cry—Undone, undone!
Is there no help, no comfort—none?
No gleaning in the wide wheat-plains
Where others drive their loaded wains?
My vacant days go on, go on.

VOL. LVI.—NO. 3

"This Nature, though the snows be down,
Thinks kindly of the bird of June:
The little red hip on the tree
Is ripe for such. What is for me,
Whose days so winteringly go on?

"I ask less kindness to be done—
Only to loose these pilgrim-shoon,
(Too early worn and grimed,) with sweet,
Cool deathly touch to these tired feet,
Till days go out which now go on.

"Only to lift the turf unmown
From off the earth where it has grown,
Some cubit-space, and say, 'Behold,
Creep in, poor Heart, beneath that fold,
Forgetting how the days go on.'

"What harm would that do? Green anon
The sward would quicken, overshone
By skies as blue; and crickets might
Have leave to chirp there day and night
While my new rest went on, went on.

"—A Voice reproves me thereupon,
More sweet than Nature's when the drone
Of bees is sweetest, and more deep
Than when the rivers overleap
The shuddering pines, and thunder on.

"God's Voice, not Nature's! Night and noon
He sits upon the great white throne
And listens for the creatures' praise.
What babble we of days and days?
The Day-spring He, whose days go on.

"He reigns above, he reigns alone;
Systems burn out, and leave his throne:
Fair mists of seraphs melt and fall
Around him, changes amid all—
Ancient of Days, whose days go on.

"He reigns below, he reigns alone,
And, having life in love forgone
Beneath the crown of sovran thorns,
He reigns the Jealous God. Who mourns
Or rules with him, while days go on?

"By anguish which made pale the sun,
I hear him charge his saints that none
Among his creatures anywhere
Blaspheem against him with despair,
However darkly days go on.

"Take from my head the thorn-wreath brown!
No mortal grief deserves that crown.
O supreme Love, chief misery,
The sharp regalia are for THEE
Whose days eternally go on!

"For us—whatever's undergone,
Thou knowest, wilt what is done.
Grief may be joy misunderstood;
Only the Good discerns the good.
I trust thee while my days go on.

"Whatever's lost, it first was won:
We will not struggle nor impugn.

Perhaps the cup was broken here,
That Heaven's new wine might show more
clear.

I praise thee while my days go on.

"*I praise thee while my days go on ;
I love thee while my days go on :
Through dark and dearth, through fire and
frost,
With emptied arms and treasure lost,
I thank thee while my days go on.*

"And having in thy life-depth thrown
Being and suffering, (which are one,)
As a child drops his pebble small
Down some deep well, and hears it fall
Smiling—so I. *THY DAYS GO ON.*"

This is Mrs. Browning's especial key. To sing and to say such things, she was born and trained in the school of suffering, and given to us. She was a strong-minded and more passionate Cowper, with an infinite endowment of soul and vision—which, indeed, are one. Through her own tears she saw the golden headlands of eternal truths. Of this same order of poems in which this glorious woman walks steadily along the cliffs in the dark night, and storm of sorrow, we notice the lines called *Only a Curl*. They will explain themselves to many a broken-hearted mother, and be a consolation.

"Friends of faces unknown and a land
Unvisited over the sea,
Who tell me how lonely you stand
With a single gold curl in the hand
Held up to be looked at by me—

"While you ask me to ponder and say
What a father and mother can do,
*With the bright fellow-locks put away
Out of reach, beyond kiss, in the clay
Where the violets press nearer than you.*

"Shall I speak like a poet, or run
Into weak woman's tears for relief?
*O children! I never lost one—
Yet my arm's round my own little son,
And Love knows the secret of Grief.*

"God lent him and takes him,' you sigh;
—Nay, there let me break with your pain;
God's generous in giving, say I—
And the thing which he gives, I deny
That he ever can take back again.

"*He gives what he gives.* I appeal
To all who bear babes in the hour
When the veil of the body we feel
Rent round us—while torments reveal
The motherhood's advent in power,

"And the babe cries!—has each of us known
By apocalypse, (God being there

Full in nature,) the child is our own,
Life of life, love of love, moan of moan,
Through all changes, all times, everywhere

"He's ours and forever. Believe,
O father! O mother! look back
To the first love's assurance. To give
Means with God not to tempt or deceive
With a cup thrust in Benjamin's sack.

"He gives what he gives. Be content!
He resumes nothing given—be sure!
God lend? Where the usurers lent
In his temple, indignant he went
And scourged away all those impure.

"He lends not; but gives to the end,
As he loves to the end. If it seem
That he draws back a gift, comprehend
Tis to add to it rather—amend,
And finish it up to your dream—

"Or keep—as the mother will toys
Too costly, though given by herself,
Till the room shall be stiller from noise,
And the children more fit for such joys,
Kept over their heads on the shelf.

"So look up, friends! *you, who indeed*
Have possessed in your house a sweet piece
Of the Heaven which men strive for, *must need*
Be more earnest than others are—speed
Where they loiter, persist where they cease.

"You know how one angel smiles there.
Then weep not. *'Tis easy for you*
To be drawn by a single gold hair
Of that curl, from earth's storm and despair,
To the safe place above us. Adieu."

The reader must go to the book, the volume of *Last Poems*. There are many in quite other keys, upon which we will not dwell. We have quoted till we are ashamed to quote more. Of the writer's amazing command over language and meter, for interpreting passion, and interpenetrating words with passion, we must refer to *Bianca among the Nightingales*. Our age has had, and has many noble poets, but we had rather have said farewell to any one of them than to this gifted woman. She was less a cultivator of the art of poetry than many, but she was a poet. Her emotions and experiences frequently hurried her into great errors of meter, and sometimes a passing impulse with her became a generalization; but she found her poems in the deepest wells of the human heart, and she let down her words—buckets of water into dry wells—into parched hearts. Thus, beyond almost any other poet of our day, we may call her the Consoler.

From the Edinburgh Review.

MEMOIRS OF RICHARD THE THIRD.*

It was the shrewd remark of Johnson, that when the world think long about a matter, they generally think right; and this may be one reason why attempts to whitewash the received villains or tyrants of history have been commonly attended with indifferent success. The ugly features of Robespierre's character look positively more repulsive through the varnish of sophistry which M. Louis Blanc has spread over them. The new light thrown by Mr. Carlyle on the domestic and political career of Frederic William of Prussia, the collector of giants, simply exhibits him as the closest approximation to a downright brute and madman that was ever long tolerated as the ruler of a civilized community. Despite of Mr. Froude's indefatigable research, skillful arrangement of materials, and attractive style, Henry the Eighth is still the royal Bluebeard, who spared neither man in his anger nor woman in his lust; and hardly any perceptible change has been effected in the popular impression of Richard the Third, although since 1621 (the date of Buck's History) it has continued an open question whether he was really guilty of more than a small fraction of the crimes imputed to him.

Walpole's *Historic Doubts* is amongst the best of his writings. If he was advocating a paradox, he believed it to be a truth; and in the subsequent encounter with Hume, he has the advantage which thorough acquaintance with the subject must almost always give over the ablest antagonist, whose original views were based upon superficial knowledge. Yet no part of this remarkable essay is freshly remembered, except an incidental reference (on which the ingenious author laid little stress) to the apocryphal testimony of the Countess of Desmond, who had dined with Richard in her youth,

and declared him to be the handsomest man at court, except his brother Edward, confessedly the handsomest man of his day. Mr. Sharon Turner's learned and conscientious recapitulation of the good measures, enlightened views, and kindly actions of Richard has proved equally inoperative to stem the current of obloquy.* Why is this? Why do we thus cling to a judgment which, we are assured, has been ill-considered, to the extent of uniformly opposing a deaf ear to motions for a new trial? Is it because the numerical majority of the English public are in the same predicament as the great Duke of Marlborough, who boldly avowed Shakspeare to be the only History of England he ever read? because the ground once occupied by creative genius is thenceforth unapproachable by realities and unassailable by proofs? The image of the dramatic Richard, as represented by a succession of great actors, is vividly called up whenever the name is mentioned—

"And when he would have said King Richard died,
And called a horse, a horse, he *Burbage* cried;"

and this is unluckily one of the rare instances in which, if it be not profanation to say so, the truth and modesty of nature have been overstepped by our immortal bard to produce a character of calculated and unmitigated atrocity. In the very first scene, the hero, after expatiating on his deformities, concludes:

"And therefore—since I can not prove a lover
To entertain these fair, well spoken days,
I am determinéd to prove a villain."

Moralists have laid down that dwarfs and misshapen persons are commonly out

* *Memoirs of Richard the Third and some of his Contemporaries*. With an Historical Drama on the Battle of Bosworth. By JOHN HENRAGE JESSÉ. London. 1861.

* See the *History of England during the Middle Ages*, vol. iv. book v. chap. i. All the best materials and weightiest authorities for the defense of Richard are collected in this chapter.

of humor with the world, but it may be doubted whether any one in actual life ever indulged in this sort of self-communing at the outset of a career. The far truer picture of a man hurried from crime to crime by ambition is Macbeth; and the most virulent assailants of Richard's memory are agreed in allowing him the kind of merit which Fielding gives to Jonathan Wild, who, finding, after due deliberation, that he could gain nothing by refraining from a good action, did one. By presupposing the worst, such a commencement checks artistic development whilst it violates the truth of history; and not the least interesting or instructive result, anticipated from an impartial examination of the authorities, will be the insight we shall attain by means of them into the heaven-born poet's mode of selecting and working up the materials of his play.

Mr. Jesse frankly owns that his work has been composed without any definite object, moral, critical, antiquarian, or philosophical. It "emanated indirectly in the drama," entitled *The Last War of the Roses*, which occupies more than a fourth of the volume, and strikes us to be an attempt, more ambitious than successful, to rival the greatest of dramatists on his own ground. "To the merit of novelty," says the author in his preface, "whether of facts or arguments, he can prefer but a very trifling claim. To compress scattered and curious information, and, if possible, to amuse, have been the primary objects of the author." The result is a very agreeable addition to popular literature, containing a good deal that will be new as well as interesting to the class of readers for whose amusement he is in the habit of catering. But if the life of Richard was to be rewritten at all, the task should have been undertaken in a more serious and meditative mood, with a full sense of its responsibilities, and a keener insight into the complex causes of the strange notions of right and wrong, legality and illegality, which marked the period in dispute.

During the whole of the Plantagenet dynasty, the succession to the crown was involved in the most mischievous uncertainty. Except in the case of an adult eldest son, inheriting from the father, there was no rule of descent universally recognized. Whether more remote lineals should be preferred to collaterals, or

whether claims by or through females were admissible at all, were questions frequently and most furiously agitated; nor was any title deemed absolutely unimpeachable until ratified by the popular voice, or, what was equally or more potent, by the assent of the landed aristocracy. It is not going too far to say that any member of the royal family, or even any peer related to it by blood, had a chance of the throne; hence the plentiful crop of conspiracies constantly springing up: hence, also, the eagerness of the sovereign, *de facto*, to get rid, by any means, foul or fair, of every possible competitor. To bear no brother near the throne was not, in the fifteenth century, peculiar to the Turk; and servile parliaments were never wanting to pronounce or ratify the cruel sentences of fear, expediency, or hate. The wholesale beheading, hanging, and quartering, that took place after each alternation of fortune during the Yorkist and Lancastrian battles, were only exceeded in atrocity by the vindictive and insulting butcheries of prisoners perpetrated on the field. It has been computed that not fewer than eighty princes of the blood died deaths of violence during these wars; and the ancient nobility would have been well-nigh extinguished, altogether, had the struggle been prolonged. Edward IV.'s first parliament included in one Act of Attainder, Henry VI., Queen Margaret, their son Edward, the Dukes of Somerset and Exeter, the Earls of Northumberland, Devon, Wiltshire, and Pembroke, Viscount Beaumont, Lords Ross, Neville, Rougemont, Dacre, and Hungerfield, with one hundred and thirty-eight knights, priests, and esquires, who were one and all adjudged to suffer all the penalties of treason. The prevalent doctrine of these times as to religious and moral obligations is comprised in these lines:

"*York*. I took an oath he should quietly reign.

"*Edw*. But for a kingdom any oath may be broken.

I'd break a thousand oaths to reign one year.

"*Rich*. An oath is of no moment, being not took

Before a true and lawful magistrate

That hath authority over him that swears.

Henry had none, but did usurp the place."

Subjects had no more respect for oaths than princes; and what we now under-

stand by loyalty was almost unknown. We are indebted to Lord Macaulay's penetration and sagacity for the discovery that the Scottish clans, which so long upheld the cause of the Stuarts, were animated far more by local sympathies and antipathies, especially by hatred of the Campbells, than by chivalrous devotion to a fallen dynasty. The Yorkists and Lancastrians were influenced by an analogous class of motives, or by purely selfish views. Most of the greater barons chose their side from hopes of personal aggrandizement, or from private pique. The most notorious example was Warwick, the King-maker, who feasted daily thirty thousand persons in his castle-halls, who could rally thirty thousand men under his banner, and carry them, like a troop of household servants, from camp to camp, as passion, interest, or caprice dictated. It is a remarkable fact that, in 1469, each of the rival kings was under duress at once—Edward IV. at Middleham, and Henry VI. in the Tower, whilst the Nevilles were wavering between the two.* It has been taken for granted that the people, as contradistinguished from the barons, were Yorkists, who were undoubtedly popular in the city of London, where Edward IV. won all hearts by his courtesy and hospitality. Neither in city or country, however, do we find any national or public-spirited preference for either dynasty. When the commoners rose, they rose from a sense of personal oppression, or, like the followers of Robin of Redesdale, in order to redress some local grievance.

There is not a more striking illustration of the gross ignorance and superstition of the age than the general belief that the mists which disordered the tactics of Warwick's army at Barnet were raised for the purpose by Friar Bungay. It was, in fact, the age of all others in which unscrupulous ambition might hope to thrive; in which every thing was possible for courage, military skill, statecraft, and dogged determination, backed by birth and fortune. If Richard has attained a bad pre-eminence for treachery and bloodthirstiness, it must be owned that he succumbed to temptations from which few of his family or generation would have turned away.

Although Shakspeare assigns him a

prominent part in the battle of Wakefield, where his father, the Duke of York, was taken and put to death, after exclaiming,

"Three times did Richard make a lane to me,
And thrice cried, Courage father, fight it out;"

Richard (born Oct. 2, 1452) was only in his ninth year when that battle was fought, and he narrowly escaped the fate of Rutland. The Duchess of York took refuge with her younger children in the Low Countries, and remained there, till the triumphant entry of Edward IV. into London and the decisive victory of Towton restored them to their country and to more than the full immunities of their rank. The title of Duke of Gloucester, with an ample appanage in the shape of lordships and manors, was at once conferred on Richard, who, at an unusually early age, was also appointed to three or four offices of the highest trust and dignity. He amply justified the confidence reposed in him. He had the same motive as the weak, wavering Clarence for joining Warwick, when the King-maker broke with Edward and sent the haughty message:

"Tell him from me that he has done me wrong,
And for it I'll uncrown him ere't be long."

What the precise wrong was, is still a mystery. The repudiation of the contract with the Lady Bona, sister of Louis of France, is doubted by Hume, and rejected by Lingard, as the cause of quarrel; whilst the author of *The Last of the Barons* gives plausible reasons for the conjecture on which the plot of that romance mainly turns—that Warwick took just offense at an insult offered by the amorous monarch to one of his daughters. The hand of the eldest, the Lady Isabella, was the bait with which the King-maker lured Clarence; and Richard had been from early youth attached to the youngest, (whom Shakspeare calls the eldest,) Lady Anne; a circumstance which may partly account for his rapid success in the famous courtship scene; the forced and overcharged character of which is so glossed over and concealed by the consummate art of the execution, that we are puzzled in what sense to receive the exulting exclamation:

"Was ever woman in such humor wooed
Was ever woman in such humor won?"

* Lingard, vol. iv. p. 168.

Shakspeare makes Richard remain true to Edward from calculation; his chances of the crown being materially increased by the defection of Clarence. But a man may not be the less honest, because honesty is his best policy; and it is enough that in every emergency he gave Edward the wisest and apparently most disinterested counsel, as well as the support of his tried courage and military skill. He commanded the right wing of the Yorkist army at Barnet, and was directly opposed to Warwick, the most renowned warrior of the period. Personal prowess was then essential in a leader, and Gloucester and Warwick are reported to have fought hand-to-hand in the *mêlée*. According to the tradition, the King-maker evaded the conflict as long as he could, and then felled Richard unwounded to the ground. At Tewkesbury he commanded the van, and was confronted with the Duke of Somerset, who had taken up so formidable a position, fenced by dikes and hedges, that to carry it seemed hopeless. After a feigned attack and a short conflict, Gloucester drew back as if for a retreat. Somerset, rash and impetuous, was deceived by this maneuver, and left his vantage ground, when Gloucester faced about and fell upon the Lancastrians so furiously and unexpectedly that they were driven back in confusion to their intrenchments, which the pursuing force entered along with them. Lord Wenlock, who, by coming to their assistance with his division, might have beaten back Gloucester, never stirred; and Somerset no sooner regained his camp, than, riding up to his recreant friend, he denounced him as a traitor and coward, and stopped recrimination and remonstrance by dashing out his brains with a battle-ax.

The chief glory of this well-fought field belonged to Richard; but unluckily it was the scene of a tragedy in which the part of first villain has been popularly assigned to him. We are required to believe that directly after leading his troops to victory, his instinctive bloodthirstiness induced him to take the lead in a cowardly assassination in which others were only too anxious to anticipate him. The common story runs that after the battle of Tewkesbury, Margaret and her son, aged eighteen, were brought before Edward, who asked the prince in an insulting manner how he dared to invade his dominions, and irritated by a spirited reply, struck him on the face with his gauntlet; whereupon

the Dukes of Clarence and Gloucester, Lord Hastings, and Sir Thomas Grey, taking the blow as a signal, hurried the prince into the next room, and there dispatched him with their daggers. A contemporary historian, Fabian, says that the King "strake him with the gauntlet upon the face, after which stroke, so by him received, he was by the Kyng's servants incontinently slaine." The Chronicle of Croyland, of nearly the same date, says, "that he was slain by the avenging hands of several, (*ultricibus quorundam manibus*)." The names of the alleged perpetrators were first given by Hall, and afterward copied from him by Holingshed. Stowe adopts Fabian's version, which is much the most probable; and the King's brutality is not utterly destitute of palliation, when it is remembered how his brother, the Earl of Rutland, had been put to death after the battle of Wakefield. Mr. Sharon Turner, relying on what he deems an authentic ms. in the Harleian Collection, says that "the Prince was taken as flying toward the town, and was slain in the field." Bernard Andreas, writing in 1509, says, "*belligerens occiderat*."

That Richard stabbed Henry VI. with his own hand in the Tower, will appear still more improbable; especially when we consider that during the whole of Edward IV.'s reign he was playing for popularity, and trying to base it on a character for sanctity and self-denial. According to Shakspeare, directly after stabbing the young prince, he hurries off to a fresh murder.

"*Glo.* Clarence, excuse me to the King my brother.

I'll hence to London, on a serious matter :
Ere ye come there, be sure to hear some news.

"*Clar.* What? what?

"*Glo.* The Tower! the Tower?"

Toward the conclusion of the scene, his absence and presumed errand are thus glanced at:

"*King Edw.* Where's Richard gone?

"*Clar.* To London, all in post; and as I guess

To make a bloody supper in the Tower.

"*King Edw.* He's sudden, if a thing comes in his head.

Now march we hence."

This is taking the matter coolly enough, in all conscience; and to add to the absurdity, the Tower was not, at that time,

familiarly associated with images of murder and misery, nor would it have been apostrophized as

"Ye towers of Julius, London's lasting shame,
With many a foul and midnight murder fed."

It was a royal palace, in which the queen of Edward IV. was residing at the time, whilst Henry VI., who had been placed in the front of the Yorkist army at Tewkesbury to give him a chance of being shot by a friendly arrow, was certainly not in the Tower on the eve of the battle. He is supposed to have died seventeen days afterward, on the night of the twenty-first of May, 1471, the day of King Edward's return to London. His death was attributed to grief, and the body was carried in solemn procession to St. Paul's, where it was exposed to public gaze, "the face open, so that every man might see him." The face might have been so composed as to tell no tales; and the exposure of the body was the almost invariable practice in cases of alleged or suspected death by violence. The bodies of Edward II., Richard II., Thomas of Woodstock, and Humphrey, Duke of Gloucester, were similarly exposed. Few doubted that Henry was put to death: it being quite in accordance with custom and the spirit of the times for the king *de facto* to deal summarily with his rival. The shortness of the interval between the imprisonment and the death of princes is proverbial. The strange, if not absolutely incredible incident of so common a catastrophe, was that a prince of the blood should be named to do the deed, or volunteer to do it as a labor of love. No circumstance that can heighten the atrocity is omitted in the scene where Gloucester, having already killed Henry, stabs him again, exclaiming:

"If any spark of life be yet remaining,
Down, down, to hell; and say I sent thee there."

The motive which seems wanting in the preceding instances was undeniably strong enough to raise a presumption that Richard contrived or hastened the death of Clarence, who had once stood in the way of his love, and still stood in the way of his interest and his ambition. When all other means failed to keep Richard from the Lady Anne, Clarence, who had married the eldest daughter of the King-maker, and wished to appropriate the entire inheritance,

caused his sister-in-law to be concealed; and she was eventually found by Richard in an obscure corner of London, in the garb of a kitchen-maid. Whether this disguise was voluntarily assumed to escape from an unwelcome suitor, must be left to conjecture. She accepted his protection without scruple, and was placed by him in the sanctuary of St. Martin's-le-Grand, from whence she was transferred to the guardianship of her uncle, the Archbishop of York. That she was wooed and won during her attendance on the corpse of her father-in-law, is a poetic fiction: an *alibi* might easily be made out for both parties; and it is further remarkable that no objection was made to their union on the ground of Richard's alleged participation in the murder of her first husband, nor was she ever, during her lifetime, accused of insensibility or indelicacy on that account. The date of the marriage is unknown; but as she bore him a child in 1473, it is inferred that it took place as soon as her year of mourning had expired.

Clarence vowed that if his brother would have a bride, she should be a portionless one. "He may well have my lady sister-in-law, but we will part no inheritance," are the words attributed to him in the Paston Letters; and Sir John Paston writes: "As for other tidings, I trust to God that the two Dukes of Clarence and Gloucester shall be set at one by the award of the King." It was arranged that each should plead his own cause in person before the King in council; and (according to a cotemporary) they both exhibited so much acuteness, and found arguments in such abundance, that the whole audience, including the lawyers, were lost in admiration and surprise. The decision, carried out by an act of Parliament, was, that the property should be equally divided between the two sisters, the husbands retaining life interests in their wives' estates respectively. This settlement, equitable and impartial as it looks, was based on a gross injustice, for it overlooked the prior claim of the King-maker's widow, who, as heiress of the Beauchamps, Earls of Warwick, had brought him the largest of his estates, and by this award was left dependent, if not penniless.

Richard was not the man to forgive or forget Clarence's unbrotherly conduct, although his ambition soared too high to be coupled with cupidity. His superiority to all sordid considerations was strikingly

displayed during the invasion of France, in 1475, when Edward, at the head of one of the finest armies that ever left the English coast, was cajoled and out-manœvered by Louis XI. into doing worse than nothing. The expedition ended in a disgraceful treaty, by which Edward was to receive certain sums of money, which he wanted for his personal pleasures. Bribes were plentifully distributed amongst the nobles and courtiers who were thought able to facilitate this result. Lord Howard received twenty thousand crowns, in money and plate, beside a pension. The Lord Chancellor and the Master of the Rolls pocketed large sums. What is most extraordinary, they gave written acknowledgments, which were regularly docketed by their royal paymaster. The apologists for Bacon, who maintain that the custom of receiving presents by judges and privy-councillors endured to his day, may point to these receipts in support of their theory; others may point to them as proofs of all-pervading corruption or unblushing audacity. The less charitable supposition is favored by what De Commynes has recorded of Hastings, who, more prudent than his colleagues, declined the transaction in the proposed shape, saying: "If you wish me to take the money, you must put it into my sleeve."

Richard alone refused to barter English honor for French gold. "Only the Duke of Gloucester, who stood aloof on the other side for honor, frowned at this accord, and expressed much sorrow, as compassionating the glory of his nation blemished in it." Habington, from whom we quote, suggests that the Duke had a further and more dangerous aim, "as who, by the dishonor of his brothers, thought his credit received increase; and by how much the King sunk in opinion, he should rise." Bacon adopts the same method of depreciation: "And that out of this deep root of ambition it sprang that, as well at the treaty of peace *as upon all other occasions*, Richard, then Duke of Gloucester, stood ever upon the side of honor, raising his own reputation to the disadvantage of the King, his brother, and drawing the eyes of all (especially of the nobles and soldiers) upon himself." According to this mode of reasoning, brotherly love and loyalty required him to be as corrupt and self-seeking as the rest. Yet surely if he was content to rise by patriotism and integrity, it is enough. If he assumed virtues that

he had not, this, at all events, refutes the notion that he wantonly and gratuitously perpetrated acts which must have exposed him to general execration and distrust; and we have here, from his worst calumniators, the admitted fact that down to 1475 his means were noble, be his end and motives what they may.

With regard to his alleged participation in the death of Clarence, the charge rests exclusively on a vague presumption of his having hardened the heart of Edward, already sufficiently incensed against Clarence, and ready at all times to trample down all ties of relationship and all feelings of mercy when his throne was in danger, or his vindictiveness was roused. Clarence had joined Warwick in impeaching his title and denying his legitimacy. Untaught by experience, he had recently indulged in intemperate language against his sovereign, who actually appeared in person as the principal accuser at the trial, which was of the most solemn description known to the law. The Duke was found guilty by his peers, and both Houses of Parliament petitioned for his execution, and afterward passed a bill of attainder. He was also peculiarly obnoxious to the Queen and her friends, Rivers, Hastings, and the Greys.

"The only favor," says Hume, "which the King granted his brother after his condemnation, was to leave him the choice of his death; and he was privately drowned in a butt of malmsey in the Tower; a whimsical choice, which implies that he had an extraordinary passion for that liquor." Mr. Bayley (*History of the Tower*) suggests that his well-known fondness for this wine was the foundation of the story, although, so far as evidence goes, the fondness for the wine is mere matter of conjecture; and we rather agree with Walpole, that "whoever can believe that a butt of wine was the engine of his death, may believe that Richard helped him into it, and kept him down till he was suffocated." Yet this is precisely what some do believe, or maintain. "After Clarence," writes Sandford, "had offered his masepenny in the Tower of London, he was drowned in a butt of malmsey; his brother, the Duke of Gloucester, assisting thereat with his own proper hands." The most plausible solution of the enigma is suggested by Shakspeare, when he makes the First Murderer tell the Second; "Take him over the costard with the hilts of thy sword, and then throw him into the maln-

sey butt in the next room." The dialogue on Clarence's awakening is :

"*Clar.* Where art thou, keeper? Give me a cup of wine.

"*First Murd.* You shall have wine enough, my lord, anon."

After a brief parley, the First Murderer stabs him, exclaiming :

"Take that, and that; if all this will not do, I'll drown you in the malmsey butt within."

He carries out the body, and returns to tell his relenting comrade :

"Well, I'll go hide the body in some hole, Till that the Duke give order for his burial."

Clarence's groans may have been stifled in a full butt conveniently nigh, or the body may have been temporarily hidden in an empty one.

Richard was for several years Lord Warden, or Keeper, of the Northern Marches, and while residing in a kind of viceregal capacity at York, he so ingratiated himself with the people of the city and neighborhood, that they stood by him to the last. In 1482, he commanded the army which invaded Scotland, entered Edinburgh in triumph, and speedily brought the Scottish king to terms. On the death of his brother he was in the fullness of his fame as a soldier and statesman. He was also the first prince of the blood; and he must have been endowed with an amount of stoical indifference and self-denial seldom found in high places at any time, if no ambitious hopes dawned upon him. Edward IV. died on the ninth April, 1483, leaving two sons, Edward V., twelve years and five months old, and Richard Duke of York, between ten and eleven, besides several daughters. The court and country were divided between two parties, that of the Queen and her kinsmen, and that of the ancient nobility, who had taken offense at the honors lavished on her upstart connections. The malcontents, headed by the Duke of Buckingham and favored by Lord Hastings, naturally dreaded the aggrandizement of their adversaries, and were prepared to go any lengths to prevent them from getting exclusive possession of the King's person, and governing in his name. The Queen and her brothers, on the other hand, resolved to make the best of the situation, and took immediate measures for overawing the threatened resist-

ance to their schemes. The young King was at Ludlow Castle, under the guardianship of his maternal uncle, Anthony Woodville, Earl of Rivers, renowned for his gallantry and accomplishments. He had a large military force under his command, and it was proposed that he should escort the King to London, at the head of all the men he could muster. This was vehemently opposed by Hastings, a member of the council at which the plan was broached, and his opposition so far prevailed, that the escort was nominally reduced to two thousand men. About the same time, Buckingham put himself into communication with Richard, who was quietly watching the progress of events at York, and abiding the moment when his interposition would become, or be thought, indispensable for the salvation of the realm. A divided nobility, a minority, and a female regency afforded ample materials, in those unsettled times, for the aspirant to supreme power to work upon, without openly or prematurely assuming the part of the ungrateful brother and unnatural uncle. According to Sir Thomas More, he sent letters to Lord Rivers, with full assurances of duty and subjection to his nephew, and love and friendship to himself; "so that he, seeing all things calm and peaceable, came up with no greater number of followers than was necessary to show the King's honor and greatness. At Northampton, the regal party were met by the Dukes of Gloucester and Buckingham, by whose advice the King was sent on to Stony Stratford, for the sake of more convenient lodging, while Rivers was feasted by the two Dukes "with all demonstrations of joy, and signs of friendship."

As soon as he was gone, they entered into consultation with a select number of their friends, and spent the greater part of the night in conference. The result became known in the morning, when, after putting Rivers under arrest, and laying an embargo on his suite, they hurried on to Stratford, and arrested Lord Richard Gray, (the Queen's son by her first husband,) Sir Thomas Vaughan, and Sir Richard Howse, on a charge of conspiracy, in the very presence of the King. Despite his tears and entreaties, they also removed from about his person all on whom they could not confidently reckon to act as their creatures. They then escorted him to London, and were met at Hornsey "by the Mayor and Sheriffs, with all their breth-

the Aldermen in scarlet, and five red commoners on horseback, in purpled gowns." "In this solemn cavalcade," continues Sir Thomas More, "the armor of the Duke of Gloucester to the king was very remarkable; for he rode abreasted before him, and often, with a loud voice, said to the people, '*Behold your prince and sovereign*;' giving them on all occasions such an example of reverence and duty, as might teach them how to honor and respect their prince; by which action he so won on all the spectators, that they looked on the late misrepresentations of him as the effect of his enemies' malice, and he was on all hands accounted the best, as he was the first, subject in the kingdom."

The Protectorship was easily attained. It was conferred on him "by a great council of the nobility, who met to settle the government and choose a Protector, according to the usual custom of the minority of their kings."* The next step was attended with difficulty. On hearing of the arrest of her brothers, the Queen, with her youngest son and daughters, had hurried into the sanctuary of Westminster; and her refusal to quit it, or trust her son out of her protection, was an impediment to the Protector's designs, as well as an injurious expression of distrust. He would have resorted to force, had not the Archbishop of Canterbury represented that it would be a thing not only ungrateful to the whole nation, but highly displeasing to Almighty God, to have the privilege of sanctuary broken in that church, which was first consecrated by St. Peter, "who came down, above five hundred years ago, in person, accompanied with many angels, by night, to do it;" in proof whereof, the prelate affirmed that St. Peter's cope, worn on the occasion, was still to be seen in the abbey. What could be done by persuasion, the Archbishop readily engaged to try; and, accompanied by several lords of the council, he forthwith proceeded to the sanctuary to argue the matter out with the Queen, who, influenced more by fear than argument, at length gave up the point. She led her son to the Archbishop and lords of council, and after solemnly confiding him to their care, she kissed him, and said: "Farewell,

mine own sweet son. The Almighty be thy protector! Let me kiss thee once more before we part, for God knows when we shall kiss again." The child was first carried to the Bishop of London's palace, where his brother was lodged, and, after a few days, they were both removed to the Tower, the ostensible reason being that they might be ready for the ceremony of the coronation.

Buckingham had probably entered fully into Richard's ulterior designs upon the crown, from their formation. Hastings was not so compliant. He had been the intimate, attached, and trusted friend of the late king, and his loyalty was proof against temptation. After he had been sounded through Catesby, his ruin and death was resolved upon; and gross as are the means described by Shakspeare in the council scene, where Richard exhibits his withered arm, they are little more than a metrical version of the text of More, who reports the Protector's words to have been: "Do you answer with *ifs* and *ands*, as if I charged them falsely? I tell you, they have done it, and thou hast joined with them in this villainy." He struck the table hard with his fist; upon which armed men rushed in, and seized the Archbishop of York, Lord Stanley, and several other lords, besides Hastings, who was "ordered forthwith to prepare himself for his death, for the Protector had sworn by St. Paul that he would not dine till his head was off. It was in vain to complain of severity or demand justice—the Protector's oath must not be broken; so he was forced to take the next priest that came, and make a short confession, for the common form was too long for the Protector's stomach to wait on; and being immediately hurried to the green, by the chappell within the Tower, his head was laid on a timber-logg, which was provided for repairing the chappell, and there stricken off."

Walpole objects that the collateral circumstances introduced by More do but weaken his account, and take from its probability. He urges that, cruel or not, Richard was no fool, and was not likely to lay the withering of his arm (if it ever was withered) on witchcraft, or to couple the Queen and Jane Shore together as accomplices, the Queen's aversion for her late husband's concubine being notorious. The sudden arrest and death of Hastings, however, are under

* Sir Thomas More. Lingard states that the House of Lords then always took upon itself to settle the government in cases of doubt or difficulty, and his authorities bear out the statement.

ble; and on the very same day, Earl Rivers, Lord Richard Grey, Vaughan, and Howse, were beheaded at Pontefract. These executions were consonant to the manners and violence of the times; of which Lingard furnishes a striking illustration by quoting the commission of the Lord High Constable, who is empowered to execute speedy justice, and distinctly enjoined to dispense with regular proofs and forms.

So inured were people to scenes of blood and the high-handed exertion of authority, that the citizens of London, by whom Hastings had been much esteemed, were easily persuaded that the public weal required him to be summarily dealt upon:

"*Buck.* Look you, my lord mayor:
Would you imagine, or almost believe,
Wer't not, that by great preservation
We live to tell it you: the subtle traitor
This day had plotted in the council-house
To murder me, and my good lord of Gloster.

"*May.* Now fair befall you! he deserved his death,
And your good graces both have well proceeded
To warn false traitors from the like attempts.
*I never looked for better at his hands
After he once fell in with Mistress Shore.*"

The received accounts of Richard's mode of ascending the throne are contradictory, and it is difficult to believe that he laid much stress on the voices of the rabble in Guildhall, although here again Shakspeare is supported by More. Under a regular government, with a standing army and a centralized system of administration, a usurper who has force on his side may dispense with national support. Not so in times when authority was divided, when the whole population was more or less military, when the possession of the capital with the command of the public offices left the rest of the kingdom uncontrolled. Richard must have been sure of a powerful party, or he would never have ventured to present himself as king before the very parliament which he had summoned in the name of the nephew he deposed. This important fact is made clear by Mr. Gairdner, who, admitting that this parliament was not formally called together, asserts that it did meet, and that the petition to Richard to assume the crown was presented by a deputation of the Lords and Commons of England, accompanied by another from

the city of London, on the very day that had been originally appointed for its meeting.* If after so many changes of dynasty, such frequent assertions and denials of title, any respect for hereditary right yet lingered in the public mind, it must have been rudely shaken by the imputed illegitimacy not only of the late king himself but of his children by his second wife. Stillington, Bishop of Bath and Wells, volunteered a deposition that Edward, at the time of his marriage with Lady Grey, had a wife living, Eleanor, daughter of the Earl of Shrewsbury; the bishop himself having married them, at the pressing request of Edward, without witnesses. This is one of the stories which people accept or repudiate, according to interest or inclination. It suited the notables, who were overpersuaded by Richard or dreaded the evils of a prolonged minority, to believe or affect to believe the bishop, and an act was subsequently passed on the assumption of its truth.

From this mock election in June, says More, he commenced his reign, and was crowned in July with the same provision that was made for the coronation of his nephew. The day before the ceremony he and his Queen rode from the Tower through the city to Westminster, with a train comprising three dukes, nine earls, and twenty-two barons. There was a larger attendance than usual of peers, lay and spiritual, and great dignitaries at the ensuing ceremony in Westminster Hall; and More records as most observable that the Countess of Richmond, mother to King Henry VII., bore up the Queen's train in the procession. Richard soon afterward left London on a royal progress toward York, where he was crowned a second time; and it was in this progress

* *Letters and Papers illustrative of the Reigns of Richard III. and Henry VII.,* edited by James Gairdner, published by the authority of the Lord Commissioners of Her Majesty's Treasury, under the direction of the Master of the Rolls. London: Longman & Co. 1861. Vol. i. preface, p. xviii. Mr. Gairdner suggests in a note that there is reason to believe Sir T. More's *History of Richard III.* to be a translation of a work of Cardinal Morton. This may account for its Lancastrian bias. Walpole says: "I take the truth to be that Sir Thomas wrote his *Reign of Edward the Fifth* as he wrote his *Utopia*, to amuse his leisure and exercise his fancy." The only strictly cotemporary historians or chroniclers are Fabian, a citizen of London, and the author of the *Chronicle of Croyland*, a monk. Neither saw or heard more than the surface of events or the current rumors of the time.

that he is reported to have planned the crime which has done more to blacken his memory than all his other misdeeds put together, being indeed the main cause why men's minds were thenceforth predisposed to give credence to any barely plausible accusation that might be brought against him. Feeling this, Walpole has exerted his utmost powers of research and ingenuity to prove that Richard did not cause his nephews to be murdered in the Tower, and he has pointed out many material improbabilities and discrepancies in the popular narrative. He lays great stress on the admissions of More and Bacon, that it was long doubted whether the princes were murdered or had died during Richard's reign at all. He insinuates that, if one or both of them had been found in the Tower on the accession of Henry VII., that politic monarch would have got rid of them with no more scruple than he showed in getting rid of Clarence's eldest son and heir, the Earl of Warwick, whom Richard spared; and he contends that Perkin Warbeck was no imposter, but

the genuine Duke of York, who had been saved by Tyrrell and his accomplices when they smothered his elder brother.

This would be no defense for Richard, if it were true; and the charge in question differs from the rest in the most essential point. Far from being a posthumous production of Lancastrian writers, it was pointedly and repeatedly bruited about at a time when the readiest modes of refutation, if it was groundless, were in Richard's power, and when he had the most powerful of all imaginable motives for resorting to them. When he found foreign princes, including even Louis XI., giving open expression to their abhorrence, and thorough-going adherents like Buckingham falling off, why did he not at once produce his nephews in the open face of day? Even the conventional farce of exposing the bodies was not hazarded, from a conviction probably that two at once would be too much for the most ignorant or slavish credulity.

[TO BE CONTINUED.]

From the North British Review.

PRESENT MOVEMENTS AMONG THE FRENCH CLERGY.*

WE must not form our judgment of the French clergy too exclusively from the Bishop of Poitiers or the Archbishop of Toulouse. There are others at work, who are but little like them. Their quiet labors are more Christian, more patriotic, and more hopeful. The mere fact that such men exist at all, is one to be noted and pondered: for, at such a time as this, it is full of significance; and, as men sincerely seeking truth, they deserve our cordial sympathy.

Perhaps it is not easy for us, on this side of the Channel, to estimate justly either the sadness or the difficulty of the task to

which they have felt themselves called. We are accustomed to look upon the French with a sort of wondering curiosity; they seem so different from ourselves. The convulsions in their political system—which, for more than seventy years, have been the object alternately of the dread and the compassion of Europe—have been only a too faithful reflection of the religious and intellectual vicissitudes of the inner life. In philosophy, system after system has been the “rage,” and has disappeared with surprising rapidity. The great French philosophical writers have had, as Mr. Lewes has pointed out, this great advantage over those of Germany, that they have been as admirable for the clearness and attractiveness of their style, as the Germans have been remarkable for the re-

* *Principes Généraux d'une Théodicée Pratique.* Paris: J. B. Pélagaud et Ce. 1860.

De la Vie et de la Mort des Nations. Paris: J. B. Pélagaud et Ce. 1860.

verse. And no one who has even a slight acquaintance with the literature of the two countries can doubt the truth of this remark, or fail to perceive that this is one cause why the French systems have so rapidly in each case succeeded in taking hold of the popular mind. But another remark may also be made, which will go far to account for their failing so signally to maintain the ground which they had won. While their style has been clear and attractive, their thoughts have been wanting in depth. Not that they have been deficient in talent and cleverness—both these qualities they have possessed in a high degree—but in genius, in true philosophical insight, they have been poor. Hence their systems were eagerly grasped; for they were readily understood, and they appeared to solve many a tormenting problem; but, weighed in the balance of a month's experience, they were found wanting. They were, after all, not grappling with, but avoiding, the questions which deeply stir the mind of man. From Condillac onward—Condillac, who found fault with Locke for laying the sources of our ideas *too deep*—the tendency of French philosophy has been more and more steadily toward the surface. It has seemed to know less and less of the real depths of the soul. Victor Cousin's words, indeed, were grand, and seemed to mean much; but his mind was at best eclectic, not creative. He himself seemed to hover hither and thither, uncertain whither he went; and though at one time he was followed by a vast multitude of pupils, who worshiped him with something like idolatry, yet they have rapidly dwindled to almost nothing. After him, the name of Auguste Comte became the most conspicuous. Weary of unceasing contradictions, he raised the cry that the question of life is insoluble. We are to leave the world unseen to itself, and attend to the one which is presented to our senses. The search after wisdom is to end in the coördination of the sciences; and we are to find rest unto our souls in the construction of a "Positive Philosophy," based upon the objects which we see, and touch, and handle. But Comte has proved a traitor to his own system. "A lady named Clotilde" dispersed his theory, and proved to him that the positive philosophy was unable to account for the mightiest of the springs of human action. There is, after all, something which we do not receive through the senses. A system which

left no room for love must either expand or break. He chose the latter. The choice did him credit; he preferred truth to theoretic consistency. But the fact that he was reduced to such a dilemma, showed the unsoundness of his theory. The system which was to have united all philosophy could not maintain its own unity. Utter anarchy is the result; and though it may be true, as we are told, that philosophy exhibits more activity in France than in any other country of Europe, it is equally true that not one of its systems has as yet been able to take any deep root in the French mind.

Meanwhile, what of religion? what of that region of the mind which is in direct connection with the world of spirits? Religion seems in France to have become almost entirely a thing of the past. Men talk of it as they do of things gone by. They examine the old belief as they do the fossil remains of antiquity. Human faith and human understanding have drifted into an apparently hopeless antagonism. The great gulf which has been fixed between science and revelation is impassable, and it exercises a fatal influence upon the first, and is a hindrance to any intelligent reception of the second. The instincts of the human mind urge irresistibly to progress, and Christian faith in France is placed in unnatural hostility to progress: therefore Christian faith is thrown aside, and the human mind enters without chart or compass upon the "dim unknown," to find soon that without faith science is but a name, and that without belief in another world it is impossible to interpret this. In politics, in philosophy, in religion, the French have been wandering in dry places, seeking rest and finding none.

All this is sad; it is a mournful spectacle even for us to look on; but what must it be to feel it as part of ourselves? how must these things appear to a thinking Frenchman—to one who must feel the sin and the shame as in some measure his own? It is more painful to see a brother go wrong than a stranger. To perceive the real beauty of a nation's character, to see the grandeur of its mission, to feel its life-blood throbbing in all the noblest impulses of one's own heart; and then to see that mission betrayed—that beauty turned into a hideous caricature—that national character burlesqued by one's own flesh and blood—this is terrible. And there are Frenchmen, and more of them than we

are apt to suppose, who are bearing this burden. There are some who have caught a glimpse of life, and can recognize by contrast the lineaments of death. How melancholy is the tone of such words as these: "*Formerly*, when there was a religion in France, when some general belief in the relations which bind together earth and heaven supplied a definite aim to human life;" or such as these: "*Formerly*, when French society had a soul." Yet these are the words of a writer in a recent number of a prominent French review. There is a tone of sadness often pervading even those French books which are written to be amusing. The want of belief has choked the springs of hope; and even in his gaiety the writer seems, with more or less consciousness, to feel that he is acting a part.

"*When French society had a soul.*" The words are startling; but what if they express a truth? They sound metaphorical? but we are so little accustomed to ask ourselves the meaning of our words, that truth itself often sounds like metaphor. If there is such a thing as national life, if there is a living principle which animates a nation as a whole, which appears amid all the diversities of individual character, and constitutes the many members one body; if this national character is impressed upon a people by Him who fixed the bounds of their habitation—if it may be refined, ennobled, and quickened by reference to him, and by obedience to the mission which he has given; or, on the other hand, corrupted or destroyed by forgetting or denying him—if this be so, then it is certainly no metaphorical use of words to say, that the life of a nation may be suspended; thousands of its individual members may live to stem the tide of corruption, while society, as such, has lost its living soul—its principle of collective life and unity. But is it so with France? Such words are used by a Frenchman; and, in sober sadness, we think he had reason for uttering them. There is a wild fascination in the spectacle exhibited to the world by the people of France. Is there any intelligent will which molds and controls their actions? What is it? Whence these sudden starts of apparent life, stilled with equal suddenness in the slumber of death?—as if an alien spirit took possession of a lifeless body, animated it for a moment with convulsive life—the life of a maniac, exceeding fierce, so that none could pass

by that way—and then departed, and left it to its death. The terrible shock of the Revolution might well seem to a Frenchman to have destroyed the unity of national character and national life, and to have resolved the nation into its primitive elements. Its powers since then have often been *combined*; have they ever been *united*? It requires to be remolded into one organized whole; each separate atom must be brought within the influence of some common center of action, and animated by some common spirit—not, as at present, of destructive, but of constructive power—before the name of nation can again be rightly applied to it.

But only from within can a nation's salvation come. External means can avail nothing. The strong hand of mere power is worse than useless; it may bind in chains and fetters, and may sometimes succeed in restraining the gusts of frenzy; but it never can give the inner coherence, which is the first condition of corporate life. But if a living spirit—not an alien, but the breath of Him who made it—begins to stir within the body, may not the quickening words, "Arise, and live," be heard, low and gentle at first, a still small whisper, only to be heard by those who listen well, but gathering strength, and speaking in louder and louder tones, till the whole body rises at last and comes forth to a calm and genuine life? The beginning of such a life cometh not with observation. It will pervade the whole body at last; but it moveth all things quietly. If here and there we can discern a cluster of men, thoughtful but active, in sympathy and union with one another, bent not upon self-aggrandizement, but self-sacrifice, men who make it their one object to diffuse around them the life which they feel stirring in themselves—then life is visibly at work; and be it ever remembered, that life is stronger than death. Such men will have a solitary task to perform. Few will understand them; very few will sympathize with them. They must have keen insight to perceive their country's want, and an undoubting faith and an iron will to deliver her in spite of herself. They require a power which can triumph not only over external hindrances, but also over their own weakness and wavering; for many attempts will fail, many mistakes and blunders will probably be made by themselves, before the right path is found. But if the task be solitary, it is a noble one; and

whoever enters upon it in purity of heart, is following the footsteps of the Son of man.

We may hope that in France there are many hearts that beat high with aspirations such as these. Some there certainly are; and the two books, whose names we have placed at the head of this article, are full of this noble yearning. Their author, the Abbé Gabriel, is a Frenchman, and a priest of the Roman Catholic Church. We need not be startled at this. Though he is a Frenchman, his politics are not explosive; though he is a Roman Catholic, the Papacy has, perhaps, more to fear from him than if he stood outside her communion. He is actuated by a spirit which has seldom or never been prominently exhibited in the French Church—a spirit full of deep reverence for the past, coupled with a genial hope for future progress—a determination to follow faithfully the guidance vouchsafed to himself, without despising the light which is shining upon the paths of others. The appearance of such men, and such books, is a proof that the movement, which is so plainly at work in this country, is not without its parallel abroad. There can hardly be a question, that the churches of Europe are passing through a time of transition. There is a “removing of those things which are shaken, that the things which can not be shaken may remain.” We are turning a corner in the road, and the prospect is already widening round us. The student of church history knows well, that there have been many such times before—times of doubt and peril—when men lived much and learned much in a small number of years. We need only mention such names as Athanasius, Augustine, Gregory the Great, St. Francis, and, above all, Luther, to show that the time of trial and sifting, which appears to await us now, can scarcely be more full of temptation and danger, than has been the lot of others before us. “The thoughts of men are widened with the process of the suns,” and never does the Church of God so completely prove the reality of her divine mission, as when she brings forth out of her treasure things new and old, and shows to each succeeding age that the revelation intrusted to her is large enough to answer its deepest questionings, and to offer a home to its sublimest and truest thoughts. And she that watereth is watered also herself. By so transforming the

spirit of the age, and answering its needs, she herself learns more of the many-sided wisdom of God, which is contained in the faith once delivered; and in this way growth is as much the law of her being as of any other human society.

There are signs of transition everywhere. There is a growing impatience of any forms which are felt to have lost the living spirit which once animated them. Men are straining after higher and freer life, which shall deliver them from the bonds in which they feel themselves bound, but which must itself be presented in some definite form, before it can vivify and quicken those who are hungering and thirsting to receive it. It is the old story, men must feel the famine before they can appreciate the food which is given to them. By and by they will learn that the bread of their Father's house had all along been sufficient for their needs. Meanwhile it is true, that, in some hasty spirits, impatience may lead to grievous error. Light in this world seldom fails to cast a shadow. There is always danger of a revolt against all restraint, and a mere assertion of self-will. But very different from this is the deep swelling life, which gives the real ground of hope for the future—the discontent with the present, which comes not so much from pride as from humility—the courageous glance into the future, which proceeds not from self-confidence, but from faith; and to those who are willing to look upon human life with a hopeful eye, this bright side is as visible as that dark shadow. The insurrection against falsehood may be temporarily mingled with a rebellion against all rule whatever; but its deepest foundations must be laid in an undying love of truth.

From a merely external point of view, the signs of change upon the Continent do not appear more striking now than they have often appeared before. Rome is not a prey to more terrible outward anarchy than she was when the contests of Orsini and Scotti deluged the city with blood, and when every city in the States of the Church was waging independent war with nearly every other. The state of the Papedom is nothing to what it was when the infamous Theodora held unlimited sway over the first bishopric of Christendom. The dependence of the Pope upon the French monarch is not what it was during the “Babylonish captivi-

ty" of the fourteenth century. Those awful times, no doubt, came not without a cause, and ended not without bearing their fruit. They were a scandal to the world, and good men mourned over them, and had rejoiced; and illustrious names are handed down to us of men who nobly labored to stem the tide of corruption. But we miss in them the signs of steadfast and general determination that these things should be so no longer. Men mourned, and hoped, and feared, but they did not in a body resolve. There were but few who dared to resist the hierarchical system of the time, and these few drew the sword with irresolute wavering, and a secret fear that they might haply be found fighting against God. The spell of the Papacy had not yet lost its hold upon the minds of men, for it had not yet done its work. But men became gradually conscious that the spell was broken; and probably the nearest parallel to the present state of things would be found in the period when men began to act on this consciousness, without, as yet, distinctly perceiving whither they went. The century preceding the Reformation presents more than one point of similarity with our own; that century, which includes within its limits the "Reforming Councils" of Pisa, Constance, and Basle, and, in its later half especially, the deep and strong popular movement in Germany, which made itself so signally felt in the reign of Maximilian, and which must have had such great influence in forming the character of Luther. Then the heart of Christendom was awake, and its thoughts found expression in the only form which was natural to the time. But *now* the human *will* has been called into fierce activity by the French Revolution, and the events which followed it. Were a Luther to arise now, and wake the slumbering faith which should guide and sustain that will, who can calculate what might be the result? What a vigorous return might be expected to the sources of ancient truth! The strong demands of the age must wake a response from the Church. She must look again into her treasure-house, and, unless her divine mission has ceased, she can and will satisfy the needs of this generation as of those which have gone before it. In this island, the demand has been made loudly and long. It has been felt, that if the Church is to have any real power over the

minds of men, she must command it, not by external authority, but by the force of her own royal dignity. She must prove her mission, not by talking of it, but by exercising it; her power of healing, not by praising her medicines, but by giving health to the sick.

And a like demand is made upon the Church in France; but it is made in a different manner, and a different answer must be given to it: for, in the strict and true sense of the words, there never yet has existed a *French National Church*. As compared with other nations of the Continent, the French have indeed, for many centuries, been especially jealous of the liberties of their Church as against the Popes. During the whole history of the Papal power, scarcely any country has given the Popes so much trouble as France. No people has put forth so many claims to special privileges, none has preferred so frequent demands for exemption from burdens which others were bearing, as the French. The contest between the Popes and the German Emperors is no exception to this statement. It was long and deadly, but it rested on grounds peculiarly sublime, and, so far as the Continent was concerned, peculiarly its own. The Emperor represented the majesty of the State, as distinguished from that of the Church; and only by the contest of these opposites could men learn the true significance of each, and the deep unity which lies beneath them both. The contest sprang, not from the passions of individuals, though these might furnish the particular occasion of the moment, but from the instincts of human nature, which must eventually show themselves, however much they may be restrained for a time. But the battles between the Popes and the Kings of France were fought on a far lower level. In reading their history, we can not help feeling the misgiving, that if the immediate occasion had not roused the conflict, it would never have existed at all. They were not the result of a deep and enduring national character, which must of necessity find an utterance somewhere—which is discernible in the whole history of the nation, and is here and there especially conspicuous, only because here and there some especial cause may have called it into more visible activity. Not such was the cause of nearly all the disputes of which we hear, but rather the particular, and often petty injury of the time—the affront just offered to the

national vanity; the refusal of some special privilege, to which the "grande nation" thought itself entitled; the mortification of seeing some other sovereign more highly honored or favored than him of France. These, and such as these, were the grievances which roused the French people; of a resistance offered to the Pope by the French Church as such, of a defense of those truths which lay at the root of her existence, we hear almost nothing. The Church was *in* France, but not *of* France. It had not been formed by steady and legitimate growth out of the body of the people, and it was no true reflection of the national character.

In very early times, when the nation was as yet unborn; when new hordes of barbarous invaders were incessantly sweeping over the country; when government had no existence, and manners and language did not continue the same for a month together—the clergy were the only fixed nucleus of society; and that clergy was necessarily foreign, almost exclusively Italian, and resting upon Italy for their support. Hence their intercourse with the Roman Church, which, before the barbarous invasion, had been infrequent, often cold, and sometimes hostile, now became both friendly and close. In such a state of society, or rather in a country such as this, where society did not exist, it seemed impossible for the clergy to adapt themselves to the thoughts and feelings of the ever-shifting myriads whom they were laboring to Christianize. Their work was with individuals, rather than with a nation. It was well if they could maintain their footing amid the waves; and when more settled times came, their work also would become more settled and more hopeful. Hence they were more and more thrown inward upon themselves. Their habits of mind belonged to the country from which they drew their origin, not to that in which they were dwelling. And when at last the tribes which had overrun the country coalesced into something like a nation, with a national character, and national will, the Church had already crystallized into a Latin communion. The hierarchy was Latin in spirit, though not invariably by birth—its institutions were Latin—its thoughts were Latin—its language, both of literature and worship, was Latin. A Church had been transplanted into a nation, not a nation transfigured into a Church. And as it began,

so in very great measure it has ever since remained. The share which it had in the reorganization of Charlemagne did nothing to alter its character in this respect: it continued nearly the same throughout the contests of the succeeding centuries; and the Church of France has never yet been truly French.

And as it has not been itself an embodiment of the national life, it has failed to represent some of the deepest and most characteristic national feelings and impulses. At any period when the life of the nation was deeply stirred, this want of sympathy became very manifest. A part of the national mind was seen to possess but a doubtful home in the Church, and sometimes was driven to seek one elsewhere. And while this is apparent in the earlier history of the French Church, it is naturally much more so since the period of the Reformation. Among the hidden things which that great dawn revealed, and among the hidden powers which it woke into activity, one of the most conspicuous and most important was the sense of distinct national life. A revelation was then made to Christendom which was far from being unfelt, even in those countries where the religious teaching of the Reformers was rejected. Each people began to be more conscious than before of its own characteristic peculiarities, which constituted both its strength and its weakness; and thoughts and aspirations which at any earlier period would have lain dormant in the individual breast, and have had but a slight influence upon the character, became now the moving principles of external life. The Church as it then stood could offer no resting-place to these thoughts and aspirations; and this must never be forgotten among the other causes which produced the demand for reformation. That demand was strong and imperious, in proportion not only to the depth of conviction and earnestness of purpose of those who made it, but also to the strength of the hold which the National Church had gained upon the minds of the people. Hence in England the reformation of the National Church, though begun by an arbitrary sovereign, was in the end accomplished by a sustained exertion of the national will. In France, where the ecclesiastical establishment was less identified with the people, and where men, in consequence, felt themselves less

personally interested in it, the stirring of the national life took a direction which only partially touched the Church. Its main force was spent elsewhere; and when it took a religious form, the result was rather a demand for the freedom of individual worship, than for a reformation of the National Church. Until 1685 a large measure of religious freedom was conceded to the Huguenots, but no change took place in the establishment; and after the revocation of the Edict of Nantes, the non-conforming Protestants were no longer allowed to exist in the country. But meanwhile a contest was raging within the established communion—a contest waged by violence on the one side, and passive endurance and heroic courage on the other. Jansenius had published his *Augustinus*, and had lately been gathered to his fathers. It was the age of Pascal and the Arnauld family, of Fénelon and Madame Guyon. Those heroic Christian women, the Mère Angélique, and her sister, and her niece, had made their Abbey of Port Royal the light of Europe. Christendom was filled with the fame of its learning and its piety. If it had been allowed to remain, and its influence still to be exerted directly upon the people, who can tell what might have been the result? If the spirit of Port Royal had been allowed to spread, and had become the ruling spirit of the hierarchy, the French Church might at last have become French indeed, and, in becoming national, might have become a true and faithful witness of God to the nation. But it was not to be. By a sure instinct, the Jesuits perceived that between them and the Port Royalists there must be war to the death. The two principles which animated them were as contrary to one another as light and darkness; and the executive power of the nation was wielded by the most anti-national of sects, to crush out the living spirit which had begun to show itself in such a glorious form. Port Royal was destroyed, and its holy inhabitants dispersed. We may blame Madame de Maintenon, we may blame Cardinal Noailles, we may blame Louis XIV.; and certainly that cruel persecution is a most foul and hideous blot upon the memory of them all—a blot which not all the tears and remorse of the amiable but miserably feeble Cardinal can wipe from the remembrance of his name. But, whatever may be our feelings toward the perpetrators of the

evil deed, we can not fail to perceive that the suppression of Port Royal resulted necessarily from the very nature of the Church of France. It was impossible that the latter should exist as it had hitherto existed, if it did not destroy the former, or mold it into its own likeness; the stronger of the two must needs seize the opportunity, while it remained, of crushing its opponent. Great and glorious was the history, and still more glorious was the end, of Port Royal; and great, no doubt, was its influence upon the French people; but the Church of France remained unchanged. She did all that earthly might could accomplish to extinguish the light which was in her. She cut off, as a diseased limb, the one sound portion of her body which was giving health to the rest. And by her own grievous fault it has come to pass that deep and earnest minds have been repelled not merely from herself, but from Christianity altogether; that they have connected faith in the Son of God, sometimes with a doubtful honesty, sometimes with a shallow intellect; and, in their flight from sectarian bigotry, have been led on to deny the very existence of a Church of God on earth.

The Huguenots were banished at the revocation of the Edict of Nantes in 1685; Port Royal was finally suppressed in 1709; and the French Church entered in apparent triumph upon the barren wilderness of the eighteenth century. That dreary waste—in which Christendom seemed determined to forget that there is a God, or any resurrection, or angel, or spirit, and, except for the voice of John Wesley, had, in this country at least, nearly succeeded in doing so—was her preparation for the terrible convulsion with which the century closed. And then was exhibited that spectacle without parallel in the history of the world—that spectacle which proved how deadly had been the superficial attacks of Voltaire and his followers upon a faith as superficial as themselves. The witnesses for the living God bowed down and worshipped the beast. Christian bishops came forward to proclaim that their preaching had been hypocrisy, their sacraments a deception, their religion a lie. The Church of France committed suicide in the face of the nation. Having turned the Christian Gospel into a system of ceremonies and dogmas, she now, without a blush, threw those ceremonies and dogmas aside, and preached for her Gospel what she said in her

heart, There is no God. And the nation, which had listened coldly to her former message, was now only too willing to take her at her word. The Church, which had no longer a message to deliver, sank into nothingness. In corners out of sight there lingered still the ancient faith that man is nobler than the beasts that perish, and partakes of the image of Him who made him; but the cry of the nation in the throes of its dissolution only echoed that of the Church, There is no God. Since then, where has been the French Church? where has been the French nation? Church organization was indeed restored by the first Napoleon—bishops and clergy again appeared, and the Christian religion was again professed by the State; but in no true sense can Napoleon be said to have restored the National Church. To do this lies beyond the power of emperors or legislative councils. It can come only from the deep longings of the heart of the nation, recognizing the message of the Christian Church, and finding their satisfaction therein. These longings and aspirations were not then awake. This recognition had not then taken place. The Church of Napoleon might show seeming signs of life—just as a dead body may by galvanism be made to move its limbs—but there was no life in it. It was a patch placed upon the sores of the nation, which could scarcely hide, and was utterly powerless to heal, the wound. With the returning monarchy of Louis XVIII. came still greater respect for the Church. But what was that monarchy itself? Where was the French *nation*? Frenchmen there were, but where was the bond which constituted them a nation? The living soul which had animated their fathers, and, spite of all their differences, had made and kept them one by virtue of its own unity, was gone. Political institutions had been artificially revived, but the organized body was no longer living. The nation as well as the Church had been buried out of sight. The occupant of the phantom throne might stretch out his hands to embrace the phantom Church, but a union of phantoms can not satisfy the cravings of the heart of man. A resurrection from the dead was needed, if a French nation and a French Church were again to be seen in the world.

And all this was the direct result of causes which had assumed a definite shape at least as early as the reign of Louis XIV. Under him the Church had practically re-

nounced all claim to be called national or truly catholic. She worshiped the word Catholic more loudly than ever, but all true catholicity was gone. Alien in spirit from the people, and narrow in her foundations, her fall was only a question of time; and from that fall she has never yet risen. The number of hearty members of the Established Church is at this moment extremely small. With the exception of the Protestants, whose number, as compared with that of the Roman Catholics, is very inconsiderable, and who are themselves divided into several different sects, the rest of the community may be distinguished under four different classes: First, *avowed unbelievers*. These include a most formidable proportion of the talent and intellectual power of the country, as well as the uneducated masses. Secondly, those who, for want of a better name, may be called *Political Churchmen*—men who, without any distinct recognition of Catholic teaching, still less with any firm belief of its truth, yet call themselves Churchmen, and uphold the Church from fear of a revolution. They hope, by means of its promises and threats, and its eternal sanctions, to curb the restlessness of the lower orders. They look upon the influence of the Church as upon that of the gendarme, differing only in the fact that her eyes are in every place. Thirdly, a smaller number, who are simply superstitious. They have a dim and vague terror of the world unseen, and of the Church as wielding the powers thereof; but of hearty and intelligent faith in her teaching, or affection for herself, they have none. Lastly there are a few, almost lost in the crowd, who, with earnest but saddened hearts, hoping against hope, are struggling with every kind of difficulty, and amid all discouragement, to bring their fellow-countrymen back to God. From this last number must arise every hope for the future of the French Church. Some of them are distinguished by their talents, some by their piety, some by both; and, in a disorganized state of society, such men as these may form a nucleus from which a new life may diffuse itself. Some of their leaders have indeed begun to labor for the regeneration of society with a zeal and activity which are cheering to notice. They address themselves to the rich and educated by their writings, to the poor and ignorant by their sermons, and they have lately begun to clothe their thoughts in the form of philosophy. Such a move-

ment, though in itself inconsiderable, and in some respects, it may be, defective, and even erroneous, may yet be gladly received as a pledge that there is still life in the French people. If such men are able to awake in the people of France a consciousness of their higher needs; if they succeed in persuading the more educated portion of society that a denial of the Christian revelation is not a necessary accompaniment of talent; if they can show to those who fancy themselves to be seeking after wisdom, that the problems of philosophy are not darkened but illumined by the Gospel, and to those who require a sign, that there is rest unto their souls in the word of God, they will have sown a seed, or rather proved themselves to be the seed, of a living organism which may ramify through the whole country, restore to the French people their lost unity as a nation, and be the germ of a Church in the best sense National. For this work they have at least one essential qualification—they believe in their mission. As ministers of the Church, they believe that they have a message to deliver, and they are determined honestly to deliver it. They believe that in that message lies their strength. It, not they, must change the face of society, if it is to be changed at all.

One of them, whose name is perhaps the best known in England, is the Abbé Bautain. He is a Professor at the Sorbonne, and in pulpit eloquence has hardly a rival in France. His sermons never fail to attract crowds of attentive listeners. To be a fluent talker is not difficult, but to be an orator a man must have something noble to say, and must be able to say it nobly; and M. Bautain is an orator. No one can read even his little work on the *Art of Extempore Speaking*, which has been translated into English, without perceiving that he is a man of remarkable powers. How different from the easy self-confidence of some of our popular preachers are such words as these: "Woe to him who experiences no fear before speaking in public. It shows him to be unconscious of the importance of the function which he is about to discharge, that he does not understand what truth is, whose apostle he himself should be, or that he little cares, and is not animated by that sacred fire which comes down from heaven to burn in the soul." "In the pulpit one feels the full weight of responsibility before God. All men who have had experience in public speaking,

and who have ever themselves been eloquent, know how much they have owed to the inspiration of the moment, and to that mysterious power who gives it. It is precisely because a man may have sometimes received this efficacy from above, rendering him superior to himself, that he dreads being reduced to his own strength in that critical situation, and so to prove beneath the task which he has to accomplish." One who can heartily utter words like these has a mission which is not likely to be neglected. In this self-despair, joined with confidence in a Power above one's self, lies the genuine strength of manhood.

Another great name is that of the Abbé Gabriel, the author of the *Principes Généraux d'une Théodicée Pratique*. He is deeply conscious that the French Church has fallen short of her mission because she has kept herself aloof, and refused to sympathize with the instincts of the people. They have striven after intellectual power, and she has not made them feel how intellectual power may be ennobled and sanctified. They have cried out for liberty, equality, and fraternity, and she has not taught them the truth of which those notions are the burlesque, and in which they find their correction. Some of them have been fascinated by philosophy, and have sought eagerly after the hid treasure which they feel to be shadowed forth by this visible world, and to belong to the world unseen, and she has been suspicious of their efforts, and forgotten that she had power and commandment to make known to them the wisdom of God. To correct these things, and to make men feel that Christian truth is no shallow superstition, but is deeper than the deepest reach of human thought; to make them perceive that divine revelation is not a check upon scientific inquiry, but is its greatest incentive; that theology is the mistress of all sciences only because she is the mother of all, because "she comprehends the age, though the age can never comprehend her"—to do this is the work to which the noblest spirits in France are addressing themselves; and the part of it to which M. Gabriel feels himself especially called, is to reconcile men's thoughts upon religion and philosophy, and to show how, in their different sphere, these two opposites are essentially at one. In the work just named he endeavors to give an impetus to both, to rouse in men's minds the desire to know God, and also the de-

sire to seek after wisdom, in order that he may lead them to see that God and wisdom are one, and that "he is not far from every one of them." Far from being jealous of philosophy, he would encourage it to the utmost, knowing that it is intended by Him from whom all good things do come, to be the handmaid of true religion, and that the skepticism which destroys the one is equally fatal to the other. To answer the question, What is truth? asked, as it is, sometimes in despair, sometimes in scorn, sometimes in sadness, is M. Gabriel's high ambition. Victor Cousin tried to do it, but it ended in disappointment. Auguste Comte tried to do it, but the positive philosophy has not proved to be a gospel to the world. M. Gabriel tries to do it, but his method is different from both the former. He calls it a *Théodicée Pratique*. To construct a *Théodicée* — to justify the ways of God to man — how often has this been tried; what windy and fanciful speculations have resulted from the attempt; what dreary, unsubstantial commonplaces have been put forth with this object! All the wildest vagaries of the blind leading the blind have been mixed up with it. Over and over again have men's conceptions of the ways of God proved to be but shadows cast by their own unrighteousness and caprice. M. Gabriel has one safeguard, which is by no means peculiarly his own, but to which he clings with a pure intention. He does not attempt to evolve the idea of God out of his own consciousness, because he believes that God has revealed himself in the person of his Son. He accepts the statement that the mystery hid from the foundation of the world has been revealed in Christ. The incarnation, earthly life and death of the Son of God, furnish the key by which the riddle of the universe is to be unlocked. But if that key is to be used, if that riddle of life is to be actually expounded to living, suffering men, it must be by a *Théodicée "pratique."* Men must learn to know the truth by obediently giving themselves up to Him who *is* the truth. With this safe conduct, M. Gabriel endeavors to climb the dizziest heights of metaphysics—not indeed fancying that he has any infallible security against mistakes, but in the sure confidence that if he is allowed to fall, there is One who will raise him up. He can dare to dwell on doubts, for he believes that He who made the dark-

ness as well as the light reveals himself in the perplexities of the human spirit, and will make all clear at last.

In philosophy he is not ashamed to confess that he owes a deep debt to Hegel, and he takes for the basis of his system the Hegelian principle of the "Identity of Contraries." But what a different form does this principle assume in his hands! Hegel's great proclamation was, that "Being and Non-Being are the same." He chases the objects of his consciousness into a region of such thin abstraction, that he can discover no difference between them, for they have both vanished; and then he exultingly pronounces them identical. Being in the abstract, apart from any one being, is nothing. Of course it is. In absolute unconditional light, light without color or shadow, our eyes would be of no use to us — there would be complete obscurity. Therefore, absolute light is the same as absolute darkness. If this is philosophy, we can not wonder at Hegel's statement, so often quoted against him, that philosophy has nothing to do with the interests of mankind. It would be hard indeed for mankind to find nourishment in such vapor as this. Taking his understanding — "the faculty judging according to sense" — for a guide, Hegel has followed it to the utmost bounds of its dominion; and when he tries to look across the frontier, all is monotonous, vacant "identity," for the understanding "can not discern" the things which lie beyond. But is there any thing in man which does not "judge according to sense"? Can the spirit of a man which is in him "discern spiritual things" in all their distinctness and in all their unity? M. Gabriel thinks it can. Well may he call himself a *free* disciple of Hegel. Free indeed: so free, that we question whether the so-called master would acknowledge the relationship. By virtue of this freedom, his *Théodicée* is "*pratique*." By virtue of this freedom, he can hope to preach a gospel. By virtue of this freedom, he can burst the bonds of others.

That "spirit and matter form no true dualism," is a truth proclaimed to faith by the incarnation and resurrection; but it received a very tardy recognition from philosophy. M. Gabriel takes this truth, and traces it through the universe. Things unseen and things seen — Faith and Reason — Church and State — are opposite, indeed, but never can be contradictory to

one another. They are the opposite poles of God's revelation of himself. We see now one, now the other, according to our own varying position; but there neither is nor can be any contradiction between them. They are the facts upon which this visible world is built. Their identity is as true as that of Divine Love and Divine Wrath, Divine Justice and Divine Redemption. The highest and most significant instance of this identity is man. Man is a microcosm, the meeting-point of the two worlds, the identity of both. To which of the two does he properly belong? Is he a spirit? Is he a body? Is he natural? Is he supernatural? He seems to be both: now one, now the other. He is neither: not a spirit as God is spirit, not a body as the creatures around him. He is spirit-body, supernatural-natural, unseen-seen. Corresponding to this position of man in the universe is the intellectual conception of the indefinite. The indefinite is not infinite—it has a limit; but the limit is perpetually receding; follow it on and on, and you will never reach it—it is always just out of sight. And so in the world, not of conception but of existence, man incessantly beating against the bars of his cage, always straining after something just beyond his reach; and when he has reached it, straining further still. The poet pursues his ideal truth and loveliness, the artist his ideal beauty, the philosopher his ideal wisdom. Is there no ideal of *man*? no eternal righteousness, truth, and love—"not our higher self, but a higher than we"—which haunts us all, the worst of us as much as the best, the ignorant no less than the scholar? Is there not a heavenward attraction which is ever tending to draw us upward, an original righteousness to which we can yield if we will, and be delivered from our original sin? The sense of want in man is heavenly in its origin—it is intended to lead him to God for its satisfaction. The upward call is, indeed, God's own voice in the soul drawing man to himself. And he never ceases to speak. "In goodness, in truth, in beauty, in every thing where there is the shadow of any limit whatever, there is not the absolute perfection which man desires." "This idea of infinite perfection, toward which man aspires with all the powers of his being, is the voice, the very word of God within him, the attraction of his love upon our soul, the impress of his thought upon our intellect, the living breath of his

Spirit upon our spirit; in a word, it is himself present within us, quickening us with his life."

But free-will remains untouched.

"Man is not the less free to obey this persuasive and delightful voice of God which calls him to infinite perfection, or to close the ears of his soul, and listen only to the world. He remains none the less free to follow this attraction of divine love, which solicits without compulsion, or to prefer the love of himself, the attraction of his own pride and of his carnal mind. But, whatever be the voice which in his freedom he chooses to obey, the idea of perfection remains none the less fixed in the deepest roots of his being. For even in his worst wanderings it is still infinity that he is seeking where it is not to be found—an infinity of sensuality and of pride—an infinity of earthly and material happiness; so that each one of his disappointments is an additional voice of nature and the finite world, crying to him, I am not what thou seekest; return to God, for thou canst never find thy rest but in the Infinite, and he alone can satisfy thee; if love can not teach thee thy true way to life, learn it then by the misery of thy falls."

And so human life would seem to be an education! But who is the educator? How do we know that he exists? All this points to God. This eager straining after perfection, this "*amour de l'infini*," is the real proof of his existence. It *can* not be intellectually proved, for it is above the sphere of the intellect; but the light that lighteth every man that cometh into the world reveals it.

"We can not demonstrate God; it is God who demonstrates every thing within us, and without us, by the sense of perfection which he has given us. This is his word shining in our souls, and giving us the consciousness both of ourselves and of the world, and also of God, in whom we live, and move, and have our being." "The perceptions of our spiritual sense can no more be proved true than those of our bodily sense. The former, like the latter, are incapable of demonstration; they make themselves felt by love—the love of visible things giving us the consciousness of their reality, by their substance akin to our own, as the love of God, and of things invisible, gives us the consciousness of their reality, by their actual life within us."

The same love which teaches us that God is, impels us to approach him. It produces a constant discontent, not with our present possessions or our present happiness, but with our present self, and with the words and actions by which that present self is embodied and manifested to the external world. As the constant antagonistic

play of life and death maintains the existence of our material body, as incessant death and incessant renewal is the law of its every atom, life *is* death, and death *is* life; so with the body of word and action. It must be ever tending to become a glorified body. Old habits must be thrown aside, new ones developed—the old man put off, the new man put on. Life should be one unceasing sacrifice of self, that the man may be conformed to the image of his Maker. By self-sacrifice he approaches nearer and nearer to God, and loses himself in God. Not that we have here any dreary pantheistic absorption into the Divine Essence. Man can never become God, or part of God, but he may through eternity become more and more like him. And how? By the power of Christ in man, the hope of glory, dwelling in each one of those who have been made in his image, dwelling once visibly on earth, to reveal to us the fullness of the Godhead bodily.

Here is a passage in which M. Gabriel speaks of the divine work of redemption:

“Yea, saith God, I will do even more. I myself, in the Person of my Word, will take human nature upon me. I will become man. I have given all to man, all, even the power of rejecting me. I will even give myself at last, in my Son, a sacrifice upon the cross, to the most painful passion, to the most shameful death, that men may learn to give themselves up to me and to one another; that so I may impress upon their hearts the love of God, that creative power by which they may become partakers of my nature, and partakers also of my eternal bliss.”

We think we have shown that there is much to be learned from this book, but we must also say honestly that we look in it in vain for much which we should wish to find. There is very great truth in M. Gabriel's view of self-sacrifice, but he does not help us to see the “exceeding sinfulness of sin;” we can catch but a faint glimpse of the glory of the Lamb slain from the foundation of the world. A Christian *Théodicée* must be very defective that does not more clearly recognize the deep disease of our nature and the power of the Divine Healer. It should make us see, as in a glass, the evil of sin, and the love which takes away the sin of the world. But over this subject there hangs, in the *Théodicée Pratique*, a shadowy vagueness which is not satisfactory.

Love, according to M. Gabriel, is the source of all knowledge. By loving God we learn to know more and more of the

things of God. But in this the assistance of revelation is necessary. And revelation he takes in a wide sense. It embraces, 1st, The creation; 2d, The sense of perfection in the soul; 3d, Knowledge given in paradise; 4th, The complete revelation in Christ recorded for us in the sacred Scriptures, and handed down in the Church. All these are distinct means by which the word enlightens the world, and they must be received in conjunction as one whole. Not that M. Gabriel would place these four sources of revelation on an equality with one another, or assign to them a co-ordinate authority. The heavens and the earth may indeed declare the glory of God, and the hungry longings of man's soul may lead him to seek after infinite perfection, and dim memories may still remain of the knowledge which our first parents forfeited in Paradise; but it is, after all, only in a secondary sense that the high title of revelation can be given to these three sources of knowledge, and M. Gabriel, if we understand him rightly, would not deny that the true knowledge of the glory of God can only be attained by gazing upon the face of Jesus Christ, as shown to us by the Scriptures.

We have said enough to justify our notice of this remarkable book. It is not on account of M. Gabriel's particular creed or particular philosophy, that attention has been drawn to his name. His book may perish, the scheme which it puts forth may be rejected, this particular movement may come to naught. We have taken his writings for our text, in order to show the moral and religious attitude which is assumed by some of the most active of the clergy of France. If we anywhere can trace a few earnest minds asking for the truth, the sight is a cheering one, though they may not as yet seem to be very near attaining what they seek, and though they themselves as individuals may fall by the way, and never in this world attain it at all. When men are struggling from darkness into light, we must expect them now and then to wander from their course; but that they are struggling at all is a ground of glorious hope. We may certainly look upon M. Gabriel, and others like him, as, to some extent, representative men. They show us something of the hidden influences which are at work beneath the surface of society, and of which the newspapers tell us nothing. They show us that

in the religious darkness all are not sleeping. Others, too, are feeling their way, perhaps in different, it may be opposite directions, yet still seeking at least the light; and we know that the light can not be truly and earnestly sought in vain. Meanwhile there is a special hope for the labors of such men as M. Gabriel and M. Batain; for they appear honestly to labor to point to the way, the truth, and the life. France is weary of theories, and their

thoughts are essentially practical. She turns a deaf ear to the mere assertion of dogmas, and their unceasing effort is to show that in the commandment is life. She dreams of equality and fraternity, and they tell the philosopher and the wayfarer of a brotherhood in which all are members in the incarnate Son. Lastly, she pants after progress, and progress is one of their distinctive marks—they cheer her on to an infinite goal.

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THE LATTER YEARS OF WILLIAM PITT.*

EARL STANHOPE's first two volumes, reviewed by us some months ago, brought the life of his great hero down to the latter end of 1796, the fourth year of the French war. At that time, England was suffering under the weight of gloom caused by two years of bad harvests and unsuccessful warfare. At home, the lack of food and the ever-growing taxation heightened the political ferment born of past misrule and passing changes in the neighboring states. Abroad, our fleets maintained their old renown, but our armies knew more of defeat than victory under a general of his Majesty's choosing, and our allies made no good use of the moneys supplied them from the British Treasury. On the Russian throne there sat an emperor in whose good-will no trust could ever be placed. Holland had thrown herself into the arms of France. Ireland was rife with plots and tokens of coming storm.

Just at this juncture, Pitt reveled in a dream of happiness, as sweet for the moment as it proved barren of outward fruit. In his leisure days at Holwood, he had learned to love the eldest daughter of his friend, Lord Auckland, whose house at Beckenham stood not far from his own. But the lover's poverty forced him to give up all hope of marrying a young lady

whose own lack of fortune seemed, in her father's eyes, sufficient reason for accepting a plea which many a less prudent father would have been proud to waive for the sake of him who here offered it. Looking at what might befall his child in the event of Pitt's dying or losing his place, his lordship agreed with his friend in thinking it best that the affair should go no further. What the lady herself thought or felt about it we are not told; but for that present Holwood and Beckenham became as distant as they had ere-while been near. His lordship and Pitt remained friends; the latter set himself to bear his burden as he best could; and two years after Miss Eden gave her hand to Lord Hobart, afterward Earl of Buckinghamshire. Whatever Pitt may have suffered, he was not the man to fall into a wild despair. And another burden was on him, which just then must have given his thoughts a welcome diversion. There was no time for love-sickness when the ship of Government needed a bold and watchful pilot at the helm. Throughout the whole of 1797 England's fate continually hung in a balance, which something more than human statesmanship kept from turning to the wrong side. Bad weather and a difficult coast baffled the efforts of Gen. Hoche to effect a landing in Ireland, after his fleet had slipped past the British cruisers watching for him off the coast of

* *Life of William Pitt.* By EARL STANHOPE. Vols. 3 and 4. London: Murray. 1862.

Brittany. But in February, there landed in Fishguard Bay a body of twelve hundred blackguards, the sweepings of French prisons and galleys, sent forth with a commission to take Bristol, and burn it to the ground. This noble scheme of just vengeance, as it appeared to Wolfe Tone, and other of the Irish rebels, was, happily, crushed betimes by the appearance on the coast of several hundred volunteers and militia, besides a pretty good muster of Pembrokeshire countryfolk, armed with their own tools, and such weapons as they could on the moment find. Misliking the state of things in front, and mistaking, it is said, the red cloaks of the Welshwomen for the red coats of British infantry, the "Black Legion" surrendered at discretion, without a blow. A yet worse danger was turned aside by the happy daring of Sir John Jervis, who, with his small fleet of fifteen ships, part of them led by Commodore Nelson, broke through the Spanish line of twenty-five, and gained the victory, for which Nelson was knighted, and Jervis made an earl. Driven out of Italy by the resistless Gen. Bonaparte, her very capital lying at his mercy, Austria found herself, by the middle of April, fain to accept of a peace, which gave her conqueror Belgium and the left bank of the Rhine. About the same time, Pitt was carrying through Parliament a bill confirming the famous Order in Council of February, by which the Bank of England had been allowed to suspend its payments in cash. So bold a measure for stopping a drain of gold, which else, in all likelihood, must have ended in a national bankruptcy, had, of course, its fierce opponents in the party of Fox; but the need of the moment brooked no delay; the moneyed men of London were all on Pitt's side; and the party of Fox had no chance whatever against a minister strong at once in his parliamentary following, and in the moral support of his countrymen out of doors. The bill was to have force for only a few months; but so well did it seem to work, and so ready were the people of England to do whatever was deemed best for the ultimate good of all, that its renewal from time to time became a thing of course while the war lasted.

Before this measure had become law, our Austrian ally had left us in the lurch, and a mutiny had broken out among our own seamen at Spithead. So well was it planned, so firmly yet temperately carried

on, and so just were the men's demands, that the Government yielded with a good grace; and, after one or two hitches, caused partly by the bad taste of certain officers, partly by the men's deep-rooted distrust of the Admiralty, a royal pardon for the mutineers, accompanied by a bill for increasing the seamen's pay and allowances, won them back to the allegiance, which, indeed, they had never in their hearts forsworn. In one of the ships there had been some talk of downright desertion to the enemy; but the sailors' delegates at once took the most determined steps to show their abhorrence of language so rarely heard among British seamen. What happened at Portsmouth and St. Helen's, however, became the signal for a yet more dangerous mutiny at Sheerness. While Lord Bridport's fleet was weighing anchor for a cruise off the Breton coast, Richard Parker, the ringleader at Sheerness, was sending out to the Admiralty, from the fleet he had taken down to the Nore, demands so extravagant and so imperiously worded, that no Government worthy of the name would stoop to yield them, were the peril never so great. From the ships, the mutinous spirit had found its way among the artillerymen at Woolwich, and the invalids at Sheerness. Brave old Admiral Duncan, who was blockading the Dutch ports, one morning found himself forsaken by all his ships but two, and only by making false signals, prevented the enemy from taking advantage of his isolation. The English funds fell down to forty-eight, the lowest at which they had ever been quoted. It was an anxious time for the bravest, but Pitt's courage never failed, and Sheridan's bold counsels fell on willing ears. Offers of pardon having failed to check the mutiny, it was resolved to put it down by force. Some faithful ships were still at hand; troops were sent down both banks of the Thames; gunboats were got ready, and no trouble was found in manning them. The King himself called on his Parliament for strong measures against the mutineers. A timely boldness on one side and a growing sense of shame for past wrong-doing on the other, conspired to save England from the worst danger she had yet encountered through all that century. Wearied of the tyranny enforced by their new commanders, solemnly reproached for their disloyalty by the fleets at Plymouth and Spithead, disheartened by the movements going on

around them, and the evident lack of sympathy with their cause on shore, ship's crew after ship's crew returned to their duty, until, on the thirteenth June, Parker's own vessel, the *Sandwich*, was brought under the land-batteries by the last remaining body of mutineers. Once more Admiral Duncan blockaded the Texel with a force which needed no help from human cunning, and on the thirtieth of June, Parker himself, from the yard-arm of his own ship, underwent the doom he seems to have richly deserved.

That during these troublous weeks Pitt maintained his wonted coolness and proud self-reliance, while the minds of weaker men were failing them for fear, we may well believe without seeing, for our part, any sure proof thereof in the story told by Lord Stanhope, of Pitt's being once found fast asleep a few minutes after one of his colleagues had brought him news of very serious import. A man of weak health, tired out with a hard day's work, and heavy, perhaps, with strong wine taken to recruit his jaded powers, would have shown himself unusually wanting either in common-sense or calm self-control, if he had refrained from resuming his slumber when no special good could come of his keeping awake.

About three weeks after the quelling of the mutiny died Edmund Burke, having lived just long enough to see England brought safely out of a perilous strait, and the leaders of his old party deserting their post of duty in the House of Commons. His last political effort, while he lay ill at Bath, had been the advising Government, through his friend Windham, to make no compromise with the Spithead mutineers. Luckily for the nation, advice so intemperate did not prevail, else the dying statesman might really have lived to see, in his own words, "an end of all that is worth living for in this world." Happily, on the other hand, for the veteran Irishman, he escaped the sorrow of living among the sad events which blood-stained the history of Ireland during the following year.

In the same month of July, we find Pitt backing his friend Wilberforce's efforts to gain for Roman Catholics the right of entering the militia. Carried through the Commons, this just and wise measure was thrown out by the Lords; the head of the Foreign Office, Lord Grenville, having deeply angered his friend

and colleague by voting on the other side. A few weeks earlier, Pitt had with difficulty gained his sovereign's consent to a renewal of negotiations with the French Directory. Looking at the peace which Austria had just made with France, and at the growing tightness of the English money-market, he felt that no false pride or theoretical hatred of Jacobin ideas should bar him from seeking, by worthy means, to end "so bloody and wasting a war." In spite of Grenville's frequent chafing and the shiftiness of the French Government, things were beginning to look peaceable, when a change of Government at Paris, followed by a change of envoys at Lille, ended in Lord Malmesbury's leaving the latter place empty-handed on the eighteenth September. He had hardly returned home when Pitt received from Barras a secret offer of peace on his own terms, if a sum of two millions could be paid over to Barras and his friends. This treaty also, though taken up at the time by the English minister, somehow fell soon afterward to the ground.

On the twentieth September—the very day of Lord Malmesbury's arrival—Pitt received a sad shock in the news of his kinsman Eliot's death, at the early age of thirty-nine. His grief at the loss of one so dear to him was declared by his friend Rose to "exceed conception." Only seven months before had Eliot been prevented, by a severe illness, from accepting the post of Governor-General of India, for which both Dundas and Lord Cornwallis had specially marked him out. Trials like these must have gone far to bring on the frequent headaches, and other signs of failing health, to which Pitt's letters of this period now and then allude. Some quiet weeks, however, spent in the bracing air of Walmer and the society of occasional friends, restored him to such health as he was ever allowed to enjoy. The lounging rides, "which pretended to be called shooting," did for his body what social intercourse and spinning verses did for his mind. His paraphrase of Horace's noble stanzas beginning with "*Dulce et decorum est pro patria mori*," was probably written about this time. It reflects so happily his own character, that we may well be excused for quoting a set of lines in themselves not all unworthy of the original:

"How blessed, how glorious, they who bravely fall,

Their lives devoted, at their country's call !
 Death, too, pursues the coward as he flies ;
 The dart o'ertakes him, and disgraced he
 dies.
 No mean repulse intrepid virtue knows ;
 Spotless and pure her native splendor glows ;
 No gaudy ensigns hers, of borrowed power ;
 No fame dependent on the varying hour ;
 Bowed to no yoke, her honors are her own,
 Nor court the breath of popular renown.
 On wing sublime resistless virtue soars,
 And, spurning human haunts and earthly
 shores,
 To those whom godlike deeds forbid to die,
 Unbars the gates of immortality."

That he who wrote these lines might also have written the good things by common report ascribed to him in the *Anti-Jacobin*, the first number of which came out in November of this year, it is not hard to believe ; but his biographer having looked in vain for any "positive or contemporaneous testimony" to such a fact, doubts, not wholly without reason, whether Pitt added even one line to a serial whose wit and cleverness, however flat their savor in these days, did, at the time, succeed in turning the laugh against those who had long had it all their own way. One story connected with Canning's new venture serves to illustrate the tact and readiness of his great master. Among the guests at a ministerial party was a Mr. George Ellis, once a writer in the *Rolliad*, but now a follower of Pitt, and a foremost contributor to the *Anti-Jacobin*. Being called on by somebody to tell them all about the former poem, he "seemed a little embarrassed," until Pitt, with a good-humored smile, leaned forward, and quoted a line from Dido's speech to her new guest—

"Immo æe et a primâ dic, hospes, origine nobis"——

thoughtfully leaving unsaid the "errores-que tuos" which came soon after.

Among the guests this autumn at Walmer Castle was Lord Mornington, who, having gone to receive his last instructions before sailing for India as the new Governor-General, found "Mr. Pitt in the highest spirits, entertaining officers and country gentlemen with his usual hospitality." Not the least pleasant of those he met there was Admiral Duncan, whose fleet then lay in the Downs, and who, a few weeks later, was again to find a hearty welcome under the same roof as Lord

Duncan, hero of the hard-fought battle of Camperdown. This heavy blow to the Dutch fleet put an end to all fears of a French invasion for some time to come. To commemorate the victories lately won at sea over three hostile nations, by Howe, Jervis, and Duncan, a special service was held at St. Paul's on the nineteenth December. A long train of high dignitaries passed on to the great cathedral, through a crowd of respectful onlookers. One man alone—and he the one who least deserved such treatment—was exposed to serious insult by the way. Pitt's new budget, inevitable as it seemed to be, had roused the popular feeling against its author. Instead of returning with the others after the service, he staid to dine with the Speaker in Doctor's Commons, and went home in the evening, escorted by a body of London Light Horse.

During the last two years no fewer than thirty names had been added to the British peerage, a fact in itself by no means creditable either to King or ministry, but one which some of Pitt's enemies dressed in colors much darker than the truth. It has been said, for instance, that Lord Carrington gained his honors in return for a bribe of money to the Minister himself. This charge his biographer has quite exploded, for the benefit rather of the supposed giver than of him who was said to have received the money. For in all dispassionate eyes Pitt's honor needed no clearing from a charge so utterly at variance with the known facts of his career. He might be too ready to give away peerages for service done to the State ; but the man who had more than once refused to mend his fortunes by means entirely fair, who had declined pecuniary help from the merchants of London, from his private friends, and was driven sorely against his will to accept the Wardenship of the Cinque Ports, could no more think of selling peerages for his private gain than of joining the United Irishmen in acts of treason against the empire.

The next year (1798) opened with some striking scenes. The Duke of Norfolk got turned out of his Lord Lieutenancy for having, on Fox's birthday, preached sedition at the Crown and Anchor, and varied the usual toasts by drinking to "The Majesty of the People." On the other hand, there now began to flow into the National Exchequer a stream of free-

will offerings, which on the very first day amounted to forty-six thousand pounds, and by the year's end had added two millions to the revenue raised by other means. The men who already bore much the largest share of the fiscal burdens were daily thronging to the Exchange with gifts ranging from a guinea to three thousand pounds. Merchants, bankers, members of Parliament, squires, manufacturers, peers, gave according to their several wills and means; the King himself leading the way with a promise of twenty thousand pounds a year from his privy purse. The Bank of England subscribed two hundred thousand pounds. The great Sir Robert Peel's father, then junior partner in a calico mill at Bury, on the spur of the moment, paid in ten thousand pounds, and then going back to Bury, with some fear of having overshot the mark, told his partner what he had done. "You might as well," was the reassuring answer, "have made it twenty thousand while you were about it." Meanwhile, the North of Ireland having had its turn of rebellion the year before, a yet more fearful one now burst forth in the South, unchecked by the timely arrest of its chief authors. Wexford became the center of a fierce struggle. Deeds of frightful cruelty were done on either side; the leaders, whether loyalist or rebel, being commonly powerless, even when they had the will, to stay their mad-dened followers' hands. Anxious to do the best he could at such a crisis, Pitt sent Lord Cornwallis to the scene of danger, as both Lord-Lieutenant and Commander-in-Chief. A better man he could not have appointed for the work of suppressing a fearful outbreak, and restraining the vengeful madness of his own allies. General Lake's grand scattering of the rebels at Vinegar Hill, on the twenty-first June, the day after his Lordship's arrival at the Castle, left the latter not much to do in the one direction; but there remained to him the far harder task of teaching Irish loyalists to temper victory with a due display of forbearance. How, aided only by the Irish Chancellor, Lord Clare, and the new Irish Secretary, Lord Castlereagh, he carried out the wiser policy in spite of the murmurs of all around him, need not be told here. Nor is this the place to show how heartily, when all fear of present danger from the French was over, he set himself to further Pitt's plan for effecting a

legislative union between Great Britain and Ireland.

In May of this year we find Pitt consulting with Dundas what kind of notice should be taken of an inflammatory speech, in which Fox had outdone the Duke of Norfolk on the same stage. At length it was agreed that the culprit's name should be struck off the list of privy councilors. Toward the end of the same month Pitt himself was called out by Tierney, the then leader of the opposition, for having refused to withdraw some offensive words used by him in debate, and demurred to at the time by the Speaker. In due time a duel took place at Wimbledon, and, after firing two shots each in vain, the pair parted without further ill-will. This warlike meeting happened on a Sunday. The next day Pitt wrote his mother a few lines, just to set her anxious heart at ease. His conduct in this matter gave birth to comments of various kinds. One party, headed by the King himself, who betrayed a friendly concern for his Minister's safety, was shocked at the risk so recklessly run by a public servant, whose life belonged in a special manner to his country alone. Others were even more shocked at seeing a man of Pitt's mark so ready to indulge in a practice utterly opposed to all rules of Christian morality. But for Pitt's earnest remonstrances, his friend Wilberforce would even have brought forward in the House of Commons a motion, of which, indeed, he had given the usual notice, for the prevention of dueling on the part of ministers. An attack of gout, and other symptoms of a frame diseased, followed, if it did not directly spring from the foolish business about which so much stir was made. Throughout that mid-summer Pitt's health continued so shaky, that his Majesty repeatedly urged him to take a few weeks' holiday at some inland watering-place. In the middle of July, Wilberforce found him at Holwood, much better, and "improved in his habits also;" by which he probably meant to say that Pitt rose earlier, and drank less wine than he had lately been wont to do. But change of air was still needed for such an invalid, and Pitt was enabled to spend the month of August partly at Walmer, and partly at Burton Pynsent with his mother. About the middle of September we find him again at Walmer, cheered with good news from Ireland, and watching eagerly for the

tidings, which had already been dimly rumored, of Nelson's glorious victory in the Bay of Aboukir.

A word by the way on one of those habits to which Wilberforce doubtless referred. That Pitt sometimes took more wine than was good for him, the known custom of his day would almost lead us to take for granted, if his friends themselves had not owned the general fact. But it seems equally clear that wine to him was a needful tonic, that his head, in drinking phrase, was strong, and that neither the public business nor his public speeches were found to suffer from his peculiar weakness. Once only, it is said, could his friends discover an excess of vinous ferment in their leader's oratory; and that was when he rose one evening after dinner to answer a personal attack upon himself. Next day the Clerk-Assistant of the House told the Speaker that Pitt's extravagance of the night before had given him a violent headache. On hearing this, Pitt laughingly declared it to be an excellent arrangement: "I had the wine, and the clerk got the headache."

The great battle of the Nile, for which Nelson was made a baron only, while Jervis, for a much smaller victory, had gained an earldom, check-mated Bonaparte in Egypt by making England mistress of the Mediterranean. Cut off from his home succors, he might still for a time press forward, triumphant everywhere, save when the pluck of an English ship's crew under Sidney Smith heartened the resistance of their Turkish allies. When he himself returned with a few friends to France, his lieutenants might still hold their ground against the rabble that sought to overpower them. But an army thus left to its own resources, must soon have melted away in fruitless fighting, or been driven to treat for terms, even had British troops not found their way at last to the scene of action. As it happened, these completed in the spring of 1801 the good work begun by Nelson's sailors in the autumn of 1798. For the measures which led to the battle of Alexandria and the final surrender of General Menou's wasted army, it is but fair, as Lord Stanhope urges, that Pitt's government should reap its full share of praise, in having planned what the Addington ministry were enabled to carry out.

Meanwhile, however, the war raged, and more funds were needed by the English Minister. In 1799 the Assessed Taxes

were exchanged for a general Income Tax of ten per cent on all incomes above two hundred a year, of something less by degrees on all incomes below two hundred and above sixty-five pounds. Of course the measure was abused by one set for favoring the lordlords, by another for favoring the moneyed men. Again, too, was use made of free-will offerings, many persons subscribing sums far beyond their lawful assessment. Pitt and Dundas in this way gave each two thousand a year, a sum which the former at least, had his name in the country been less prominent, might justly have been blamed for devoting to other uses than the payment of private debts. The question of funds for the year being settled, Pitt addressed himself to the scheme of an early union with Ireland. A message from his Majesty to that effect was delivered in the English Parliament on the same day that Lord Cornwallis opened the subject in College-green. Undaunted by a virtual defeat in the Irish Commons, Pitt followed up his opening move with a string of resolutions explained and enforced in a speech so powerful and well-reasoned, that Wilberforce, till then doubting which way to vote, determined straightway to support his friend. In this speech was clearly marked out the policy which Pitt would have had his countrymen pursue toward the bulk of their fellow-subjects in the sister island. After some keen but fruitless debating in the Lower House, the resolutions passed the Lords without a division. In Ireland, however, things went not quite so smoothly. The Parliament of College-green had yet to be molded into a proper mood of self-sacrificing loyalty: great landlords could not be expected to give up their political patronage without some return; the barristers and tradesmen of Dublin vied with the Orangemen of the North in their efforts to avert a change so likely to tell against the pockets of one party and the pride of the other. It was not till the beginning of next year that Castlereagh once more ventured to take the sense of the Lower House on a question which few there present had probably once thought of regarding from a thoroughly unselfish point of view. By this time, however, the Irish Government had made sure of its game; and neither the eloquence of Grattan nor the still numerous array of his supporters availed to undo the spells woven for their discomfiture during the past year. In

April, the Irish resolutions were laid before the English Parliament; a Bill of Union founded thereon was speedily carried through both Houses, and on the second of July, 1800, his Majesty's assent gave the crowning blow to a state of things which no unbiased patriot would now wish to see restored.

But we must return for a moment to the year before, in which, on the whole, success had smiled on our arms and those of our allies. In India, Lord Wellesley had begun his conquering career by the siege and capture of Seringapatam, Tippoo Sahib paying with his life and throne for his foolish plottings with the French Republic. Bonaparte's absence in Egypt, and a sudden change of feeling in the Russian Emperor's mind, had conspired to drive the French out of nearly the whole of Italy. A British army under Abercromby landed in Holland, and cut off the Dutch fleet in the Texel; but after the Duke of York took command of the allied British and Russian force, it was natural to expect the failures which really wound up that short campaign. Even had the Duke been a better general, Pitt's plan of freeing Holland from French rule could hardly have prospered in the face of so cold a welcome as the people generally gave to their supposed deliverers. That part, however, of his plan which concerned the Dutch fleet, had been well accomplished by the seizure of thirteen men-of-war—the last wrecks of that armament which Duncan had first shattered two years before. Among the higher officers who served that autumn under the Duke was Pitt's elder brother, Lord Chatham, whose name, a few years later, was to grow too famous in connection with the ill-starred expedition to the Scheldt. But a few days after the British army had been fain to bargain for its safe retreat from the country it was sent to save, an event of far more fatal meaning happened in France. On the ninth November, Bonaparte, newly returned from Egypt, overthrew the feeble government which had risen on the ruins of Robespierre's Reign of Terror, and made himself virtual ruler of France under the modest title of First Consul.

Straightway a marked change came over the fortunes of the war in Europe. While Pitt and his colleagues in Ireland were pushing forward their Bill of Union, the First Consul was leading a French army over the Alps, to beat the Austrians on the

plains of Marengo, and regain, in a few short weeks, every foot of ground lost to the French in Italy the year before. In Germany Moreau worthily followed his master's lead. The Russian Emperor had once more changed his mind, and sent no army to help the Austrians. By July Napoleon was back in Paris, and the defeated Austrians were glad enough to accept a truce during the summer. Pitt, too, was once more ready to treat for a general peace; but in his own cabinet there was no agreement about the terms, some wishing to restore the Bourbons, others objecting to any peace with a revolutionary government, and Dundas for one maintaining that England should treat for herself alone, should stand on the ground which her recent victories entitled her to take. As for the King himself, nothing could ever persuade him that the war had raged long enough, while a trace of the French revolution remained in Europe. Pitt, however, desired only such a peace as might tend to preserve a balance between the states of Europe, without trenching on the rights of nations to choose their own forms of government. In August, therefore, he also made advances which led to much correspondence, but nothing beyond. After six weeks of projects and counterprojects, the negotiations fell through for want of agreement about preliminary terms. This new disappointment, coming on the top of many anxious thoughts regarding the pressure caused by a bad harvest, did not tend to allay the illness under which the Minister was again suffering. A few weeks' stay, however, at Woodley, with his friend Addington, enabled him in November to begin the new session of Parliament with the discussion of means for relieving the present scarcity, and encouraging the growth of corn in England. Here, for once, his usual good sense seems to have failed him; and in spite of Grenville's earnest dissuasions, measures like the Brown Bread Bill were ordained for forcibly deranging the natural process by which prices fluctuate with every change in the mutual relations of supply and demand. Let us add, however, that he still avowed his old attachment to free-trade as a general rule, and sternly set his face against all demands for limiting, by law, the highest price of corn, or punishing those who raised its market value by withholding the stores they had already amassed.

When the United Parliament of Great Britain and Ireland met for the first time, on the 22d of January, 1801, the political horizon had grown yet darker than before. The snows of Hohenlinden had just been stained with the slaughter of another Austrian army. In wrath at our holding Malta, which he claimed for his own as head of the knights of St. John, the crazy Czar Paul had seized some hundreds of British shipping, and persuaded the Scandinavian powers to join him in maintaining an armed neutrality, which meant, in fact, a defensive league against England alone. But these, after all, were things of small moment compared with another cloud which hung right overhead. On the 28th January, his Majesty, according to his unkingly wont, told Dundas that he should reckon, "as his personal enemy," whoever should bring forward any such measure as that which Lord Castlereagh was said to have been discussing with Pitt. This measure was the one which Pitt and the Lord Lieutenant had long held out to the Roman Catholics as sure, at no distant date, to follow the union of the two kingdoms. The King was determined to refuse the least concession of their claims rather than give up his own reading of his Coronation Oath. Misled, perhaps, by his master's previous silence, and trusting to his own powers of persuasion when the time for speaking out should have come, Pitt had said nothing to the King about the plans which he and his colleagues were still engaged in perpending among themselves. Unluckily, he had not suspected that there was a traitor in the camp. His Chancellor, Lord Loughborough, a man of even less principle than Lord Thurlow, had, last autumn, taken advantage of the royal presence at Weymouth to betray the secrets contained in a confidential letter from the first minister, and to confirm the king in holding that view of his Coronation Oath which even his Attorney-General, the future Lord Eldon, had, five years before, pronounced untenable. Hence it happened, that now, instead of the former concert, Pitt found half his cabinet siding with the Lord Chancellor. Presently, Addington, at the King's request, tried to dissuade his friend from further movement in a matter about which his Majesty's wrath could hardly keep itself under any control. Pitt, however, had gone too far to stop short without loss of honor. In a letter full of eloquent reasoning, he

tried in vain to soften the King's heart. His Majesty would only offer such a compromise as no honorable man, in Pitt's position, could have accepted. On the fifth February, the former gave an unwilling assent to his servant's prayer for dismissal; and thus, after many years of loyal service to his King and country, the ablest minister and most high-minded statesman of that long reign, fell a sacrifice to the jealousy or the time-serving of a few false friends.

While the Speaker, Mr. Addington, was forming a makeshift ministry, with the help of Pitt's smaller colleagues, the late ministry still carried on the business of the day. Pitt opened out his budget for the coming year, and Lord Cornwallis, at his request, did all he could to pacify the Roman Catholics of Ireland. It is pleasant to remember that Lord Loughborough gained nothing by his late treachery. On the other hand, the poor King's anxieties, torn as he was between an honest regard for his oath and the need of parting with a friend who had served him so long and so ably, drove him, ere long, into a state of mental disorder, resembling the seizure of 1789. Before the end of February, there was some talk about a Regency. By the sixth of March, however, his Majesty had so far recovered as to send Pitt a message, telling of his renewed health, but upbraiding the other for having caused his illness. So deeply was the latter moved by these unfair, but to him grave reproaches, that he begged Dr. Willis to assure the King, that during the rest of his reign this vexing question should never again be mooted by Mr. Pitt. Grateful to the private feelings of a minister whom the King had long valued as a personal friend, must have been the joy his answer gave to the worthy old couple at Court. But was he justified, as a patriotic statesman, in forgoing all further efforts to arrest the discontent of a whole nation, because by any other line of action, one man's wits might possibly be deranged forever? At the worst, however, this was an amiable weakness; and it is not unlikely that Pitt may have been further swayed, either by reflections on his Majesty's ripe age, or by fears of what might happen to the country if the Prince of Wales, whose character he heartily loathed, were too early seated in his good father's throne.

Pitt's friends now hoped to place him once more at the helm of state. But no-

thing would persuade him to return, unless the King and the new Minister both asked him back of their own accord. Luckily for his own fame, no such step was then taken. His act of retirement preserved its true character, a willing sacrifice of self to an overpowering sense of duty. The conditions on which his friends believed him willing to reënter office, he himself doubtless knew to be unfeasible. As it was, he gave to the world a bright example of the self-denying patriot, who, when fortune frowned on him, could "wrap himself in his virtue, and take up honest poverty without a dower."

On the fourteenth March, Pitt gave up the seals to his master, who received him with "the utmost possible kindness," and prayed that he might still be visited as a friend—an honor which the former prudently declined. His own retirement was accompanied by that of Cornwallis, Castlereagh, Canning, Dundas, and the faithfullest of all his followers, Mr. Rose; while several others would hold office in the new Government only at his most urgent request. Lord Wellesley himself, from his high post in India, wrote him a letter full of the warmest friendship, and expressing his readiness to share his chief's retirement as soon as another viceroy could be sent out in his stead. In Addington the King found a pleasant courtier, but it was mainly to Pitt himself that all men, including the King and his new minister, looked for guidance in matters of special weight. Without him the feeble Government, headed by the "doctor's son," could hardly have lived a day. With his help, as given both in public speeches and private counsel, it struggled on through the short years of peace, until, with the return of war, came a general cry for the minister in whom alone the nation trusted to carry it on. The very first days of the Addington ministry were signalized by successes to which the former Government had led the way. Through Nelson's glorious daring, in defiance of orders, at the battle of Copenhagen, the Northern Coalition received a shattering blow, but a few days after the fate of the French in Egypt had been settled by Abercromby's life-bought victory at Alexandria.

While the French and English Governments were engaged this summer in treating for peace in the midst of warlike movements on either side, Pitt was reaping the just reward of long-continued carelessness

about his household affairs. Plundered for years past by his own servants, and never giving himself the trouble to make even a show of putting his house in order, he had sunk far deeper into debt than Sheridan ever sank at the worst of times. Creditors began to plague a man who owed forty-five thousand pounds, and, once out of office, could hardly have scraped together three thousand a year. His friends and admirers took counsel with each other what should be done. Some of them proposed a parliamentary grant. Of this, however, Pitt would not hear a word; had he left the country peaceful, and prosperous, such an offer might not, he said, have been out of place; but as things were, the idea was utterly opposed to his own feelings. Once more the merchants of London begged him, as they had done in 1789, to accept a free-will subscription of a hundred thousand pounds. This offer, too, with some show of reason, was once more declined. The King himself came forward with an offering of thirty thousand from his privy purse, an offering made through Rose with a delicacy which could not have been surpassed. Never had Rose seen his friend so moved as when he heard of his sovereign's noble act; but to him also Pitt remained inexorable. At last, he agreed to accept a few thousand pounds, contributed by a few of his personal friends, which, with the sale of Holwood, enabled him to satisfy the more urgent claims. The joke he had uttered against Fox some years before might now have been taken up against himself. When some one in Pitt's company had expressed a wonder how Fox would take the subscription his friends were secretly making for him—"Take it?"—said Pitt—"why, I suppose that he will take it quarterly, or, perhaps, it may be half-yearly!"

In the autumn, Pitt was again in town, helping to draw up the terms of that treaty of peace which some knowing critics have, from time to time, charged him with resigning office sooner than bring about. While Fox, with his usual factiousness, publicly rejoiced at a peace so "glorious to the French Republic," his nobler rival thought only of the rest his country would now enjoy from a war which, on her side, had only been undertaken for purposes of self-defense and in regard for solemn treaties. Both before and after the last signing of the Peace of Amiens, in March, 1802, attacks were frequently made in

Parliament, now by the more violent Tories against the terms of peace, now by the violent Radicals against divers measures of the late Government. As a private member, Pitt no longer troubled himself to attend debates of trifling moment; but whenever the new ministry needed a helping word, or his presence might check the rashness of his old followers, he was pretty sure to be found in his place. Once, however, perhaps of set purpose, he missed receiving to his own face the highest compliment that has ever been paid to any minister by any House of Commons. In answer to the repeated attacks of an opposition maddened by the sense of its own weakness, an immense majority carried a special vote of thanks to the Right Hon. William Pitt, for the "great and important services" he had rendered his country. A few days after, on the twenty-eighth May, a great banquet was held at Merchant Taylors' Hall in honor of Pitt's birthday, and during the evening was sung that spirited song, in which Canning had only reflected the national feeling toward "the pilot that weathered the storm."

Once more the Clerkship of the Pells became vacant through the death, in July, of Colonel Barré, and once more Pitt refused to take so fat a sinecure, as Addington wished him, for himself. Surely there was some flaw—let us say it without a sneer—in that fine sense of honor which scorned to take money for no work done, yet felt no shame in running up bills far exceeding the debtor's power to pay!

Pitt's life for some time forward seems to have been a thoroughly happy one. At Walmer Castle he busied himself in all kinds of out-door amusement—riding, sailing, shooting, farming, until another fit of illness obliged him, at Sir Walter Farquhar's urgent entreaty, to try for the first time the waters of Bath. Before starting thither, in November, he received a curious letter from Louis Philippe, then Duke of Orleans, who, pointing out the strategic importance of Switzerland to the Allies, offered to take command of the whole Swiss army. From Bath he counseled Addington to give Bonaparte no good grounds of offense, but at the same time to keep England ready for the war, which might at any moment be once more forced upon her hands. Canning and some other of his friends began just then to show an unwise zeal in plotting for his return to power; but Pitt no sooner heard of the mischief

brewing, than he strongly besought them to give over. Ere long he ceased to furnish the Cabinet with counsel, the full means of forming which were not always within his reach. At every sound of political action, however, his ears would prick up like those of an old war-horse at the distant blare of a trumpet. One day some rash speech of Canning's would make him for a moment sore, for fear of its endangering the good-will between himself and Addington. On another, he would treat Lord Malmesbury, by way of talk, to an extemporized retort on Fox for some outbreak of more than usual virulence on the part of a statesman consistent only in his antagonism to Pitt. Again, we find him sending Canning a message of hearty praise for a speech of peculiar merit, and forgiving Sheridan's pretended abuse of himself for the heavy blows he had thereby cunningly managed to deal at Fox. From London, however, and from steady political work he was persuaded for several months to keep quite aloof, varying his stay at Bath with visits to his mother and to divers friends, with whom his evenings were passed in cheerful talk; sometimes, as with Canning, in looking over some Greek or Roman author, and not seldom, as with the Malmesbury ladies, in playing at *Speculation*, the new round game of cards. For Lord Malmesbury was not the only one who found Pitt "the pleasantest companion possible at and after dinner."*

At the beginning of 1803 he was again at Walmer, laid up for several days with an attack of gout and bile. By this time Bonaparte was already driving us, by his bad faith and restless ambition, either to maintain a dishonorable peace, or to make ready for another war. No one had been more anxious than Pitt to insure his country at least a few years of peace; but no one saw more clearly into the First Consul's nature, or was less inclined to put up with his hectoring ways. Accordingly, he urged the Government, through his brother, Lord Chatham, not to dream of surrendering Malta until Bonaparte had thoroughly changed his tone and tactics. In March he writes again to urge that prompt means should be used to forearm the country against a sudden attack on the part of

* So popular was Pitt throughout the country, that when he reached Shepton Mallet, in Lord Bath's carriage, the people who had come in to market, took out the horses, and drew the carriage themselves, on the spur of the moment, to the inn.

a neighbor whose plans were every day becoming more clear. Of course, when things began to look serious, the cry for Pitt as Prime Minister waxed louder than ever. By way of satisfying it, Addington at first proposed a new Cabinet, headed by the utterly feeble Lord Chatham, with himself and Pitt for Secretaries of State. Dundas, now become Lord Melville, sounded Pitt on this matter over their port wine, and returned more openly to the charge the next day. But Pitt, who knew his own worth, and more and more disliked the financial policy of his successors, would hear nothing of a plan which gave to one minister the lead in council, and to another the first place at his Majesty's private ear. Presently, with more wisdom, and with a good deal of praiseworthy forbearance, Addington was ready to serve under Pitt, if only Grenville, Windham, and Canning, who had shown themselves the fiercest of his political foes, were left out of the new ministry. But to this also Pitt would not agree; and his refusal of the only compromise which a man of any self-respect could well stoop to offer, gave much offense to many others beside the King himself. It is fair, however, to remember, that with all the trouble they gave him, and with all their fierce or fussy attacks on a minister of his own approving, Pitt, for his own part, had some good reason to uphold the claims of a party containing his best speakers and some of his most powerful allies. Perhaps we should allow, with Lord Stanhope, that neither he nor Addington could well yield the point on which they differed. Nor can any greed of power be fairly laid to the charge of a man whose present conduct delayed his return to power for a twelvemonth longer.

At length, on the twentieth of May, a few days after the declaration of war with France, Pitt once more showed himself in the scene of his many triumphs, the House of Commons. Three days after, in the debate on the King's message, the Achilles of the English Parliament delivered a speech, which those who heard it agreed in ranking among the greatest efforts of so great a master. During this session he held a middle course between the ministers and the regular opposition, urging on the former when they seemed to flag, and freely assailing them when they seemed to be going wrong. So great, indeed, was their fear of him, that an Income Tax

Bill, which they had one day carried by a large majority, was altered the very next in accordance with the amendments which Pitt had vainly demanded the day before. On all questions of national defense, they found him eager to turn the warlike spirit of his countrymen to the widest account. While some were all for increasing the regular army alone, his good sense taught him to set high store by that cheapest defense of all free nations, a large muster of trained volunteers. It was then a stirring time for the people of these islands. Emmet's outbreak, in Dublin, had hardly been put down when England began to arm herself in every town and village against the enemy, whose long lines of plunder-loving veterans flashed coming havoc from the cliffs of Boulogne. Almost before the end of that summer, in spite of hindrances offered by a wavering Government, some three hundred thousand volunteers had answered the challenge flung from beyond the Channel. As Lord Warden of the Cinque Ports, Pitt himself had been foremost in meeting the expected danger, by raising a body of three thousand men from his own district; and at any time that autumn he might have been seen in his volunteer uniform, riding about as brigadier, to inspect or review his three battalions. One of these, it seems, had drawn up rules marked by the frequent proviso, "except in the case of actual invasion." On reading the draft rules, Pitt came at length to a clause providing that the corps should never be sent out of the country. Pitt's ready pen at once added the words, "except in the case of actual invasion."

In August of the same year, Pitt's niece, Lady Hester Stanhope, having lost her old friend the Dowager Lady Chatham, came at her uncle's request to keep house for him at Walmer Castle. At the age of twenty-seven, the future virago of the Lebanon indulged in no worse sallies than such as might readily be forgiven to a lady of good birth, of much personal beauty, of varied accomplishments, and of a lively, biting wit. During the short remainder of Pitt's life, her loving service was freely rendered him, and her presence gave to his dwelling the one charm it had never known before. For him and a few favored friends she reserved the better part of her inward self, but her wit would play unmercifully on those for whom she had no special liking. One morning, for instance, more than a year later, when

Lord Mulgrave, then become Pitt's Foreign Secretary, was seated with her at breakfast, a broken egg-spoon was given him to eat his egg with. In answer to his question, "How can Pitt have such a spoon as this?" she asked him if he had not yet discovered "that Mr. Pitt sometimes uses very slight and weak instruments to effect his ends."

In the short Christmas session little was done, beyond a partial attack made by Pitt on the ministerial mode of handling the volunteer movement; and this attack resulted in the virtual adoption of Pitt's own plan. Next year, however, Pitt's criticisms became more frequent, and more unfriendly. He would not join with Grenville in a regular assault on his whilom friends, but he could not stand by and see, in silence, things done of which he heartily disapproved. Lord St. Vincent's blundering management of the navy provoked him into making a motion which, failing of its apparent aim, did nevertheless succeed in shaming the Admiralty into exertions better according with the need of the hour. At this time, also, the King's illness made him pause before he bound himself to join Fox and Grenville, in their efforts to turn out the present ministry, but the King soon after got well, and Pitt saw no reason for delaying the fall of a government already tottering for months past. After a few pitched battles, each more ruinous than the one before, the Addington ministry agreed on the twenty-ninth April to give up the hopeless struggle. On the next day Pitt was commanded by his Majesty to draw up a written plan of a new government.

Pitt obeyed, but the wish he felt to insure the country a strong government, led him to include in his draft plan the names of Fox and Lord Grenville, two men whom his Majesty specially abhorred. On the fifth May he received from the King a cold and querulous letter, in which his Majesty not only refused to accept the names of men so hateful to him, the one on personal, the other on political grounds, but even demanded from Pitt the plainest assurance of his belief in the wisdom of that very Test Act, which Pitt would have repealed three years before. The Minister's answer was worthy of his upright self. He assured the King of his adherence, both to the opinions held by him in 1801, and to the promise he had then

given his Majesty, not to stir the Catholic question during his reign. Avowing his readiness to yield the other points, if so his Majesty commanded, he still begged the favor of a personal interview. This was granted. The King, who had hardly spoken to his old servant for the last three years; who had even once passed him in Hyde Park, without notice, now received him with compliments and kind shows. Pitt for three hours pleaded his friends' cause, and not quite in vain. With Fox, indeed, his master, for very good reasons, would have nothing whatever to do; but some of his followers might be admitted into the new Cabinet. Pitt was welcome also to take in Lord Grenville. But when he proceeded to act upon these concessions, he discovered that both the Grenville party and the followers of Fox refused to enter a Cabinet whence the great Whig leader himself would be shut out. It was in vain that the latter urged his own friends to take the opening denied to himself. Grey and Sheridan were not less resolute on the one side, than Grenville and Windham on the other. Deeply hurt at the willfulness of his own kinsman, Pitt determined "to teach that proud man that he could do without him, although the effort might cost him his life." How much he meant by the last clause may be gathered from the conviction, expressed by Lord Castlereagh in a letter written just about this time to Lord Wellesley, that, if *Pitt's health did not fail him*, the present trouble would only rouse him to greater and more successful exertions than ever.

It seems hardly worth while to clear Pitt from the blame imputed to him by Lord Macaulay for so soon giving up the point regarding Fox. He had no great cause to love his former rival, whose sentiments and conduct were widely different from his own. The King had not quite recovered from a dangerous illness, and he hated Fox as heartily as a high-minded, somewhat overweening monarch could naturally hate the factious, low-toned ally of his unworthy son. It was very doubtful whether Fox would any how have agreed to take office under Pitt; while it seems pretty certain that the pair could never have held together long. After all, too, it was, perhaps, the alliance between Fox and Grenville which at first induced Pitt, anxious only for the help of his kinsman and former colleague, to plead

for the admission also of that kinsman's new friend. Moreover, let us not forget that the new Minister had for some time lain under the cloud of his sovereign's displeasure; and that, however highly he might have valued the support of Fox, he had no reason to mistrust his own power of governing the country without that support.

With failing health, and a Cabinet somewhat shorn of the wished-for strength, the great Minister prepared to make good the words which he had uttered in his wrath against Grenville. In Parliament he had to meet the combined attacks of three different parties, led severally by Grenville, Fox, and Addington. Across the Channel, Napoleon, late First Consul, now a full-blown Emperor, was weaving his plans for gaining that brief command of the sea, which was all the opening he needed, for a triumphant raid upon British soil. So sure was he of the desired issue, that medals were actually struck, as if London had already fallen into his hands. Later years have but the more clearly proved what Fox and Grenville, in 1804, professed to gainsay, the timeliness of Pitt's exertions to ward off the threatened invasion. Nothing but a chain of tiresome mishaps, one while the slowness of his agents, at another the death of his trustiest commander, or, again, the wind's perverseness in blowing from the wrong quarter, prevented Napoleon from trying to carry out his scheme of vengeance on the overweening islanders. While Grenville busied himself with his books and gardens, and Fox accused the ministry of raising groundless alarms, Pitt was calmly grasping at every means of statesmanlike defense against the onset of a foe whose true measure he had already taken; in whom, to quote from a fragment written by himself this very year, he saw "all the capacious jealousy of conscious usurpation dreaded, detested, and obeyed; the giddiness and intoxication of splendid but unmerited success; the arrogance, the presumption, the self-will of unlimited and idolized power; and, more dreadful than all, in the plenitude of authority, the restless and incessant activity of guilty but unsated ambition." After some fierce debates in the Lower House, where Castlereagh and Canning were now his only allies of mark, he carried his bill for establishing a better system of army reserves. Martello towers were built along

the southern coast of England. Fire-ships were fitted out, in the vain hope of destroying the Boulogne flotilla. The Spaniards began openly to arm against us, and forthwith our admirals were ordered to seize the Spanish treasure-ships on their way from America. Russia, Sweden, and the German Powers were once more invited to form a close alliance with Great Britain against Europe's common foe. Plans were sketched by Pitt himself for landing British and Russian troops in the south of Italy, and British, Russian, and Swedish troops in the north of Germany, while Austria and Russia were to deal with the French in Northern Italy, and Prussia was to play her part along the Rhine.

Amidst the greater cares of this period Pitt found time to aid Wilberforce in his effort to put down the slave-trade. A bill for abolishing it in five years actually for the first time passed the Commons, but so late in the session, that no hope remained of carrying it this year through the Lords. One step, however, toward the overthrow of a system whose abettors were still almost as powerful as the foes of parliamentary reform, was taken by Pitt on his own authority. An order in Council, issued in November, decreed the extinction of the slave-trade throughout the conquered colonies; and this fact alone, not to speak of his many former efforts in the same cause, makes our astonishment all the greater at Lord Brougham's unfounded remark of Pitt's time-serving on this very question. Among other matters which also this year engaged Pitt's attention, were the attempted settlement of the quarrel between his Majesty and the Prince of Wales, and the choice of a new Archbishop of Canterbury in the room of Dr. Moore. In the former case, just as the King was ready for the promised interview, the Prince excused himself from attending on the plea of illness; and a second attempt to bring them together later in the autumn fell through in nearly the same way. With regard, on the other hand, to Dr. Moore's successor, Pitt pleaded hard for his old tutor, Bishop Tomline; but the King had fixed his fancy on Dr. Manners Sutton, and when Archbishop Moore died, in January, 1805, it was the Bishop of Norwich, not he of Lincoln, who was chosen to fill his place.

The year 1805, the last of the great Minister's public life, opened with fresh

fight in Parliament. Fiercely was Pitt assailed for his seizure of the Spanish frigates, for his scheme of recruiting the army reserves, for his silence regarding the Catholic claims, which Fox himself was to hold in abeyance the very next year. Sheridan, Fox, Grey, and Windham kept firing their pointed shafts at every seeming hole in the strong man's armor. But their keenest onset came to nothing against the champion of a good cause, backed by a large following, a heart of rock, and a tongue which had lost none of its old sharpness. Sheridan himself was scathed with such a shower of scornfully playful sarcasm, that he could only answer with a long screech of personal abuse, redolent of the Madeira he had gulped down in the meanwhile. All these triumphs, however, cost Pitt dear. The hard work told so heavily on his broken health, that the approach of Easter found him anxious to take some little holiday at Bath. But again, as during the year before, public business kept him at his post; and this time the business was to him of a kind exceedingly painful. It concerned the fair fame of Lord Melville, the oldest, steadiest, and most powerful of Pitt's supporters during the long term of his former ministry, and now the able head of that department which Lord St. Vincent had done so little to adorn. Before Easter came, Pitt knew that the Opposition were determined to bring forward a vote of censure against the chief of the Admiralty for misapplication of public moneys while he held the post of Treasurer to the Navy. To them it mattered little whether his Lordship were really guilty, if so they might get rid of an able minister, or overthrow, perhaps, an obnoxious Government.

It was in vain that Pitt, believing firmly in his friend's innocence of more than a trifling oversight, tried every means he could to defeat his opponents, or at least to effect a compromise. It was bootless for Canning to declare that if Lord Melville had either told more or less than he did about the matter, no case could have been made out against him. Some of Pitt's own supporters took part, for various reasons, in the assault on a Minister whose honesty of purpose no one pretended to doubt. On the eighth of April, Whitbread opened fire in a long speech. Pitt proposed a Select Committee, instead

of a vote of censure. But when Wilberforce spoke in favor of Whitbread's motion, and other independent members followed suit, the issue began to look serious. At length the votes were taken, and found exactly equal. After a pause of several minutes, the Speaker, Abbot, with a white face, gave the casting vote against Lord Melville. Pitt jammed down his little cocked hat on his forehead, while the tears were seen trickling down his cheeks; and, fenced round by a circle of his younger followers, he walked like one bewildered out of the House. On the same day—for the debate lasted far into the morning—Lord Melville resigned his office; and, finding himself still pursued by the rancor of his enemies, besought Pitt to let his name be struck off the Privy Council. To an offer so generous Pitt gave a very unwilling assent. When Whitbread again rose to demand further penalties against his Lordship, Pitt stopped him with the announcement of what he had already done in deference to the seeming wishes of the House of Commons, declaring at the same time, with a quivering lip, and in tones that seemed to tremble through the hall, how deep and bitter a pang he felt in being thus made the means of yet sterner punishment to his noble friend. How much of that punishment was really deserved may be gathered from the issue of Lord Melville's impeachment the next year, when a large majority of his peers found him guiltless of all the offenses laid to his charge.

Not content with smaller game, Whitbread presently flew at the First Minister himself, for having, in 1796, advanced some of the public money to two contractors, Messrs. Boyd and Benfield. This time, however, his prey escaped him. An amendment, justifying the partial breach of law, was carried without a division. Ere long another trial awaited Pitt. On the thirteenth of May, Fox brought forward a motion in support of the Catholic claims. It was painful for a man of Pitt's high character to vote against a measure which, in his heart, he probably desired more earnestly than did his rival; but, with his usual straightforward cleaving to his word, he avowed the continuance both of his old feelings toward the Roman Catholics and of the particular causes which bound him still to waive the advocacy of claims as lawful as he firmly

believed them to be harmless. With a passing tribute to the "splendid eloquence" of Grattan's first speech in the Imperial Parliament, he warned his hearers against now attempting to stir a question which he saw no chance of getting speedily settled. Of course the motion fell through. About this time, also, Lord Sidmouth began to talk of throwing up his post in the Cabinet. He had been half hostile to Lord Melville, while some of his followers openly voted against that nobleman. Persuaded for a time to stay on, he and his friend Lord Buckinghamshire left the ministry for good in July. Out of these losses one good thing arose—in Lord Castlereagh Pitt gained one of the very best War Ministers whom this country ever saw.

Amidst the turmoil of home politics Pitt never lost sight of foreign affairs. In April he persuaded the Emperor Alexander to conclude a secret treaty with Great Britain. By the end of August his rough plans of the year before had borne fruit in the shape of a coalition strong enough, one might have fancied, to crush Napoleon at one blow. Russia, Austria, Naples, and Sweden were at length prepared to make common cause with England against the imperial shifter of his neighbors' landmarks. Nelson was flying all about the Atlantic in search of Villeneuve. Castlereagh was preparing to land in the north of Germany the first division of an English army larger than any yet dispatched to the scene of war, and commanded no longer by the Duke of York. A scheme of his own planning was about to be tried against the Boulogne flotilla. Pitt spared no effort to win wavering Prussia over to our side. But Bonaparte was not to be taken in the toils. With one of his eagle swoops he had dashed away from Boulogne to cut off General Mack at Ulm, and the surrender of thirty thousand Austrian soldiers in the middle of October cast a foreboding gloom over many hearts. But a gleam of rare sunshine soon followed. On returning from his bootless chase, Nelson had landed, seen Pitt, who accompanied him to his carriage, and presently embarked on board the *Victory*, in chief command of a large fleet bound for Cadiz to meet the enemy. A few days after the capitulation of Ulm, the great sailor fought his last and greatest battle off Cape Trafalgar. The news of

that peerless triumph, dashed by the death of England's peerless Captain, having been brought to Pitt in the middle of the night, he, contrary to his wont on former occasions, could not compose himself to sleep again, but got up at three in the morning. Soon after the event had become noised abroad in England, Pitt dined at the Mansion House on Lord Mayor's day. On his health being drunk as the savior of Europe, he disclaimed the special compliment in a speech of little more than these few words: "England has saved herself by her exertions, and the rest of Europe will be saved by her example." It was at this same banquet that Erskine, getting up to speak, was told by Pitt, with a warning shake of the finger, to remember they were drinking his health "as a distinguished Colonel of Volunteers." Erskine's fear of Pitt, who could always check him by a look or a gesture, saved the company from a rambling speech on all kinds of political topics.

The battle of Trafalgar seemed to give Pitt new health and spirits during the rest of that year. The Duke of Wellington, then Sir Arthur Wellesley, hero of Assaye, and brigadier-elect under Lord Cathcart, tells of his liveliness, his long rides, his quiet dinners, and not intemperate suppers, when the two were staying at Lord Camden's seat in Kent. Another friend who met him in Gloucestershire remembers his fondness for Lucan, the playful ease of his manner, and the instructive richness of his talk. No one, he adds, would have discovered a trace of the Prime Minister in the "accomplished idler," who touched so pleasantly on all kinds of topics, grave or gay. In December we find him doing the invalid at Bath, entertaining several of his friends by turns, and playing the critic, at their own request, to Canning and Lord Mulgrave, one of whom had written a spirited, the other a feeble poem, on the battle of Trafalgar.

But the great Minister's days were already numbered. The gleam of sunshine born of Nelson's great victory too soon passed away before a cloud of unforeseen disaster. That victory had saved England from all chance of a French landing for years to come, but the tremendous defeat which Napoleon, a few weeks after, dealt on the Austrian and Russian armies at Austerlitz, sealed the doom of that great

coalition which Pitt had toiled so hard to carry out. This cruel overthrow of plans framed with the utmost skill and the largest foresight, was more than Pitt's weakened body could bear. His mind remained unconquerable; but the gout, which had shown itself in his feet, was driven inward, and, after a month of gradual wasting, the greatest Minister and one of the noblest men whom England ever produced, peacefully breathed his soul away on the morning of the twenty-third January, 1806, in his hired house on Putney Heath. The last words he was ever heard to utter were words of tenderness for that country whose grateful remembrances during his long term of power he had done so much to deserve.

On the marks of respect shown to his memory, on the splendor of his public funeral, on the costly monument built for him at the public expense, on the payment of his debts out of the public purse, and the pensions granted to his kinswomen, what need is there to dwell? All these and many other particulars of his life and death are fully and clearly told by his new biographer, whose work not many, we think, could read through without bringing away with them a clearer impression of the man therein described, and a deep conviction of his great pre-eminence as statesman, minister, patriot, over all the parliamentary leaders of his own day. If his Lordship has done no more than this, if he has treated us to no pages of brilliant writing—no passionate outbursts of one-sided praise—no reckless handling of topics beside the mark—let us be only the more thankful for a kind of abstinence in these days rare enough. He has, at any rate, produced four volumes full of matter at once agreeable and well-chosen—sometimes even quite new; volumes which only a gentleman could have written, in a style easy, simple, not devoid of a certain quiet grace, relieved by not a few passages of polished eloquence, and by many a phrase which surprises the reader for its happy yet unobtrusive point. On the whole, his life of his great kinsman seems to be at once truthful in spirit and comprehensive in its details. Nothing has been willfully garbled, and many things have been set in

their true light. Some of us may still be allowed to question the wisdom of all his measures for keeping down the Jacobins at home, or removing the pressure caused by a bad harvest and a lengthened war; others who think that literature and the arts need help from men in power, may agree with Lords Stanhope and Macaulay in blaming Pitt for not giving a pension to Cowper or a bishopric to some able churchman, though he seems to have pleaded hard for Paley, and had probably some hand in making an exciseman of Burns. Few of us would now break a lance in defense of the famous Sinking Fund, and some may perhaps rightly regret Pitt's exceeding deference to his sovereign's will; though on the latter point Fox himself but followed his rival's example a year after that rival's death. But Pitt's excellence as a financier, his large views of fiscal and commercial policy, the skill and energy with which he carried on the war against an enemy who could never grant him the only kind of peace for which an English statesman should ever care, seem to our thinking no longer questions for fair dispute. Had he but lived a little longer, indeed, the chances are that the war would have ended happily many years before the battle of Waterloo. Nor can any one now pretend to ascribe his retirement in 1801 to any other than the cause already named. But clearest of all is the moral light on which he stood above his fellows, by reference to which alone can his more doubtful actions be fairly judged. To call him greedy of power, is simply to betray one's own blindness to his real worth. Great as an orator and a statesman, he was greatest of all as a high-minded patriot, an honest gentleman, and loving-hearted Christian. The man whose youth was so pure, whose temper was so forgiving, whose friendships were so true, whom Wilberforce deemed the most upright man he knew, whose moral sway over the British Parliament was acknowledged with an envious sigh by the most selfish of men, Napoleon Bonaparte, did he not well deserve the trustful homage of that nation whose strength he wielded for so many years? May England never cease to be proud of such a statesman—never learn to disparage the moral nobleness of such a man!

From the St. James's Magazine.

THE TRUE FOUNDER OF VIRGINIA.

PART I.

KNIGHT-ERRANT AND SLAVE.

"THE true founder of Virginia!" I hear the reader exclaim. "Why, Raleigh, of course!" Error, my good sir: Sir Walter *failed* to found Virginia. "The true founder of Virginia, and who deserves to be called the father of the settlement," writes Bancroft, the historian of the United States, "was Captain John Smith, an adventurer of rare genius and undying fame." The rare genius is unquestionable; but the fame, undying though it be, will, I fear, continue to be confined within the limits of a comparatively narrow circle of admirers, unless I shall succeed in popularizing the varied, brilliant, romantic career of Captain John Smith, native of Willoughby, Lincolnshire—daring seaman, gallant soldier, chivalrous knight; beloved of ladies, European, Asiatic, and Indian; hero of three single combats—veritable, serious tournaments—fought by cartel within sight of two applauding armies and bevy of fair dames; slayer with a corn-flail of a three-tailed bashaw, by whom he was held in cruel slavery; finally, the fascinating hero who won the heart of, and whose life was saved by, the beautiful Pocahontas, daughter of Powhatan, after the mode more or less felicitously reproduced by Cooper and other Indian story-tellers; "which charming princess of the woods," writes the hero himself, "ultimately came to settle in England, having previously married a Mr. John Rolfe, and been baptized Rebecca—the first Christian of that nation that ever spoke English, or had a child in marriage by an Englishman—a matter surely, if my meaning be truly considered and well understood, worthy a princess's understanding."

The rough sketch of his life, written by himself, and dedicated to William, Earl of Pembroke, is, without exaggeration, a series of romances, strung together with modest unpretense, and sparkling with war and love adventures sufficient, if pro-

perly diluted, to fill the pages of twenty three-volume modern novels.

Captain Smith was celebrated in his own day by nearly all the minor poets cotemporary with him—Turner, O'Rourke, Carter, Ingham, Meade, Freet, Brathwaite, and others. The last breaks out in the following laureate-like laudation of his hero:

"Two greatest shires of England did thee beare—

Renowned Yorkshire, Gaunt-styled Lancashire.

But what's all this? Earth, sea, heaven above,

Tragabigzanda, Callamata's love,
Dear Pocahontas', Madame Shanoi's too,

Record thy worth, thy birth, which, as I live,
Even with thy reading, such choice solace

give,
As I would wish (such wishes doe we'll)

Many such Smiths in this our Israel."

Freet thus:

"Thou hast a course so full of honor runne,
Envy may snarle as dogges against the sunne."

Hear another cotemporary crier—the gallant O'Rourke, baptized Bryan:

"To see bright honor sparkled all in gore
Would nerve a spirit that ne'er fought before;
And that's the hight of Fame when her best blood

Is nobly spilled in actions grand and good.

So thou hast taught the world to purchase Fame,

Rearing the story on a glorious frame;
And such foundations doth thy merit make it,
As all Detraction's rage shall never shake it."

A few sentences of plain prose in addition to these poetic flourishes, and then enter, anno Domini 1599, John Smith, of Willoughby, Lincolnshire, aged about twenty, with the first blush of military fame mantling his bright youthful face, upon which discerning eyes perceive that a heroic life has already dawned and glassed itself.

Smith was educated at the Free School of Alford, and when but thirteen years old had lost both parents, a catastrophe by

which he literally fell amongst thieves—his guardians—who wasted his inheritance, and thought finally to dispose of their charge by binding him apprentice to Mr. Thomas Sandell, merchant, of Lynn. The monotonous drudgery of desk-work was not likely to suit the taste of a fiery young gallant, who, as he is careful to tell us, was descended on the paternal side from the ancient Smiths of Crudley, Lancashire; on the maternal, from the Richards, of Great Fleck, Yorkshire; and that, too, at a crisis in the world's history when the minds of men were excited, inflamed by the great conflict evoked by the trumpet-tones of Martin Luther; and when, by the discovery of America, the boundaries of the earth seemed to be enlarged for the purpose of affording new and grander fields for the development of heroic enterprise, where nothing seemed impossible of attainment by clear heads and valiant hearts.

From a very early age Smith had manifested a strong predilection for the sea; but finding it impossible to immediately gratify this inclination, he availed himself of an opportunity that presented itself of quitting, without leave asked, his master's service, and accompanied a Mr. Bertie to Paris. His first leap in the dark into the turbid currents of the world was a discouraging one—would at least have been so, to a less resolute spirit. He could find no suitable occupation, and after about two months left the French capital on foot, and with very little money in his purse. He appears, however, to have possessed a remarkable power of interesting strangers in his favor. At Paris, a Mr. David Hume, a progenitor, possibly, of the author of the well-known romance of English history, gave him letters of introduction to influential persons in Scotland. These he did not attempt to make use of for some years subsequently. In the interim, having first acquired the rudiments of soldiership at Havre de Grâce, he found his way to the Low Countries. Four years' profitable fighting in the wars raging there, though the details have not reached posterity, made him a reputation for gallantry sufficiently marked to induce his townfolk to give him uproarious welcome, when, after a fruitless effort to utilize Mr. Hume's letters at the Scottish court, he reappeared in Willoughby. Soon tiring of feasts and flattery, John Smith suddenly betook himself, accompanied by one servant, to a sylvan opening, far away from towns, eucir-

cled by hundreds of acres of forest, thickly deer-peopled; and there, on the brink of a clear rivulet, built himself a habitat with branches of trees, slept in his clothes, and fed upon venison washed down with Adam's ale, with which venison it was the sole occupation of his man-servant to victual the establishment. Smith's motive for adopting such a singular mode of life was to perfect himself in the sciences of war and ethics, to which ends he diligently studied Marcus Aurelius and Machiavelli's famous work, and constantly exercised himself on horseback with lance and ring. The romantic life of the young soldier soon became the theme of wondering gossip in the sparsely-scattered neighborhood. Amongst others, the Earl of Lincoln sought him out, and was so charmed with his spirit and manners, that he introduced him to an Italian nobleman of the name of Palaloga, and his (the Earl's) Master of Horse, with a view to perfect his *protégé* in his *manège*. Smith did not need much instruction in that particular, but was so pleased with the conversation of his new friend, that, more fully to enjoy it, and winter, moreover, being close at hand, he left his forest dwelling, and took up his abode at Tattersall.

Conversation, however refined and instructive, could not long suffice for such a restless spirit as Smith. He longed for action—action! and finally determined upon setting out, *vid* France, for Hungary, where Christians and Turks, champions of Crescent and Cross, were engaged in deadly conflict. He embarked for St. Malo; but the vessel, through stress of weather, brought up and anchored off the shallow inlet of St. Valery-sur-Somme, where the destined founder of Virginia came to, it seemed for some time, irreparable grief, after a fashion which proved that, however much he might have profited by the study of Marcus Aurelius, the crafty precepts of the Florentine had not borne congenial fruit in his mind.

On board the ship were four French adventurers, who, seeing he possessed a rich wardrobe, successfully plotted how to possess themselves thereof, as well as of other valuables that might be packed up with the luggage belonging to the free-spoken, unsuspecting English soldier. To effect their purpose, one pretended to be a French nobleman, the others the great man's servitors. The nobleman—a penniless scamp of the name of Carson—listened

with enthusiastic sympathy to Smith's schemes for winning renown as a devoted champion of the Cross, and readily engaged to introduce the aspiring young hero to a duchess, an intimate friend, whose husband happened luckily to be a General in the Christian army of Hungary. Smith was delighted, and accepted the offer of the nobleman and attendants to convey his luggage on shore, he remaining in the ship to settle some business matter with the captain, who appears to have been leagued with the robbers. Be this as it may, Smith found, on going ashore, that nobleman, attendants, and luggage had vanished; and all the knowledge he could obtain of the possible whereabouts of the villains was, that they might, perchance, be met with somewhere in the neighborhood of Mortagne, where the relatives of one or more of them resided.

Smith was in a woeful plight, though he met with much charitable assistance, notably from the prior of the great abbey of St. Stephen, Caen, and a wealthy French farmer, who, finding him lying under a tree in a state of exhaustion for lack of food, carried him to his own dwelling, treated him with great kindness, and sent him on his way with money in his purse. Smith journeyed along the sea-coast, in the hope of finding some vessel bound for a port as near as might be to the seat of war in Hungary. Unsuccessful in that, fortune made some amends by presenting a chance which warmed the sickness at his heart of hope deferred, with a fierce joy. Near Dinan he chanced to fall in with the robber Carson. Both wore swords. Smith, eager as flame, instantly attacked his enemy, and, after a for some time doubtful duel, slew him.

Ultimately Smith reached Marseilles, and, as better might not be, embarked for Italy in a vessel filled with pilgrims bound for the sacred shrine of Our Lady of Loretto. Now, Smith being an ardent supporter of the "new opinions," fluent in sarcastic speech—provoked, moreover, by the abuse of the pious passengers, who cursed him and his sovereign (Elizabeth) for Huguenots, and the English nation for pirates—one can readily believe he was not sparing of gibe and taunt anent the monstrous imposture of the shrine to which those foolish pilgrims were bearing gifts, in the fond belief that the house at Loretto, being the identical house in which the Virgin Mary lived and died, and which,

at her death—assumption rather—was borne through the air by angels to its final resting-place—gifts offered there would meet with a richer return than if presented at less hallowed altars. To such a frenzy of rage did he at last work the Loretto worshipers, that they resolved to pitch the sacrilegious heretic overboard; and did it, too, though, with commendable moderation, so near a small island used as pasture-ground for goats and cattle, that he easily reached it by swimming.

Two or three days afterward, a two-masted ship, hailing from St. Malo, commanded by Jean La Roche, cast anchor, during a violent storm, under the lee of the island. Smith contrived to get himself taken on board; and, finding that La Roche was acquainted with persons he himself had known in Brittany, related his fortunes—misfortunes, rather—and met with good entertainment. La Roche, a sort of privateer-pirate, saw at once that he had got the right man in the right place; and a bargain was without difficulty struck between the two adventurers.

The Mediterranean was swept in all directions; its shores hugged, and sometimes touched at many points, without success; till one fine day a Venetian ship was descried near the entrance to the Adriatic. The Republic was fortunately at war with France, (it might not have much signified had that not been the case,) and no scruple was consequently felt in attacking the rich argosy. The fight was a well-contested, bloody one—the Breton losing fifteen men—in which battle John Smith well vindicated the judgment of La Roche in admitting him to a qualified partnership. The victory was at last won; then—pleasure after business, or business after pleasure, which you please—came the fruits of victory. "The silks, velvets, cloth of gold and tissue, pyasters, chicquins, and sultanas—which is gold and silver—they unloaded in four hours was wonderful; whereof, having sufficient, and tired with toils, they cast her off with her company."

John Smith's share of plunder amounted to five hundred zechins (sequins?) besides a box containing five hundred more, which—an apocryphal mode of conveyance, it strikes me—he says "God sent him." Smith took leave of La Roche at Antibes.

John Smith, I must admit, falls terribly in one's estimation, as he walks off with

those thousand sequins so obtained—England was certainly not at war with the City of the Sea—and, forgetful of the terrible struggle in Hungary, goes holiday-making at Rome, “where it was his chance to see Pope Clement VI., with many cardinals, creep up the sacred stairs—which, it is said, are those our Savior went up to Pontius Pilate—where blood falling from his head pricked with the crown of thorns, the drops are marked with nails of gold. Upon them none dare go but in that manner, saying so many Ave-Marias and Pater-Nosters, as in their devotions. On each side is a pair of such-like stairs, up which you may go standing or kneeling, but divided from the holy stairs by two walls. Right against these is a chapel, where hangs a silver lamp, which burneth continually; and they say the oil neither increaseth nor diminisheth.”

The sequins are gone at last—thanks be for it—except so many as will enable John Smith to embark at Venice for Ragusa, and thence journey as he best may to Gratz, Styria, where he succeeds in entering the military service of the Duke of Austria. Once in the right groove, there could be no fear of his steady advancement. He invented fireworks—fiery-dragons, so called—fastened to the bellies of various animals, which, driven at night into the ranks of the Osmanli, created a terrible panic in the ranks of the unbelieving cavalry—a service that, with others, (the invention of military telegraphs for one,) obtained for John Smith the grade of Captain.

The hotter spirits of the opposing hosts before Regal, becoming impatient of the laborious preparations making on both sides for a battle *selon les règles*—an illustration of *la grande guerre* upon an imposing scale—and desirous, moreover, of amusing the ladies, who were anxious “to see some court pastime,” suggested that the pastime required should consist of single combats on horseback, between Moslem and Christian champions, in view of both armies and the habitants of Regal.

A Moslem officer, one Turbisha, sent the first formal challenge, to meet whom fell by lot to Captain Smith. The Moslem came forth to battle in magnificent array, heralded by martial music, well mounted and armed. On his shoulders were enormous wing-eпаulettes, compact-

ed of eagles’ feathers, and glittering with silver, gold, and precious stones.

Now came into play Smith’s practice at his forest-home, Lincolnshire, at lance and ring. The western champion galloped full tilt at the cumbrously made-up Moslem, pierced him through the head at the first stroke, decapitated the corpse, rode off therewith in triumph, and presented the same to the Lord-General, by whom it was graciously received.

The Osmanli were not to be discouraged by one mishap. A second challenge came, especially directed to Smith—eagerly accepted, of course; and again the English soldier of fortune won a facile victory.

The third challenger was Smith himself, who dispatched a fantastic message to the Turkish dames, to the effect that they might receive back the two Turks’ heads, with his own to boot, if they had a champion in their army capable of fetching them. A warrior, on whom Captain Smith bestows the *sobriquet* of Bonomalgro, accepts the adventure, but stipulated that the weapons should be swords and battle-axes—that the fatal lance in Smith’s hands should not be used. This was a desperate fight; but, after a prolonged and doubtful conflict, Captain Smith added a third head to his bloody trophies, in requital of which exploit the Duke Sigismund accorded him the privilege of quartering three Turks’ heads on his shield, bestowed upon him his portrait set in jewels, and a considerable pension for life.

This was the culminating point in Smith’s knight-errant fortunes. At the “dismal battle of Rottenton,” he was left for dead upon the fatal field, where, he says, were slain, “in defense of Christ and his Gospel,” many valiant Englishmen—amongst them Baskerville, Hardwicke, Milner, Molyneux, Davison, and one John-a-Scot.

Captain Smith’s armor and general appearance being those of a knight of high degree, his life was spared, in the hope that he would bring a rich ransom. That hope not being fulfilled, Captain John Smith, hero of the Regal tournaments and other glittering glories, was consigned to the Adrianople slave-market, and marched thither in a chain-gang of some twenty equally chap-fallen champions of Christendom. His aspect and bearing—holder, haughtier, when low and fallen from a hight, than in his days of recog-

nized superiority and triumph—suggested to Bashaw, or Pasha Bogall, who chanced to inspect the slave stock, that he (the Bashaw) having returned from the wars without visible trophies of successful valor, might enhance his fighting reputation with his young and beautiful first wife, Charatza Tragabigzanda, (I much doubt the correctness of Captain John Smith's Turkish and Tartar orthography, by the way,) by purchasing the Christian knight, and presenting him to his bride as a great Bohemian lord whom he, Bogall, had vanquished and made captive in battle.

The purchase was easily effected; but the fair Tragabigzanda, being skeptical, for reasons of her own, anent the uxorious Bashaw's valor, questioned the handsome slave; and being able to converse with tolerable fluency in Latin, she made herself acquainted, not only with the mode of his capture by her husband, but with the whole story of his life, which so interested her, that she determined upon sending him forthwith to her brother, Tymner Bashaw, in Tartary, "there to learn the language—what it was to be a Turk—till time should make him master of herself."

One potent reason for this prompt action on the susceptible lady's part was, that her mother, an unpleasantly inquisitive lady, had become apprehensive of the possible consequences of her daughter's frequent colloquies with the Bohemian lord, and was meditating how, in the interest of Turkish domesticity, she could without noise and scandal seize poor Smith, and reconsign him to the common slave-market. The gentle, loving Tragabigzanda, to prevent such a lamentable catastrophe, dispatched Captain Smith under escort to Crim-Tartary, with a message to her Bashaw brother, enjoining him to treat the illustrious captive with kindness and consideration.

I have a strong suspicion that a message of quite another character must have been sent at the same time to Bashaw Nalbritz by his mother. Be that as it may, Captain Smith, who had fondly based "his hope of deliverance upon the love of Tragabigzanda," found that that love—or more exactly rageful resentment that he, a Christian dog, should have inspired a Turkish dame of high degree with such a sentiment—conferred upon him the favor of an iron neck-collar, hair-cloth shirt, the office of slave to the other slaves, and a

diet of soup, of which the main ingredient was horse-gut! If the savage Bashaw had known Captain John Smith, of Wiltoughby, Lincolnshire, and Regal, Transylvania, as well as the reader does, he would hardly have trusted himself within reaching-aim of that individual, in a field at a long distance from any human habitation, themselves only being present. He, unknowing, was rash enough to do so; and Captain Smith with his thrashing-bat, after a few angry *pour-parlers*, smashed the Bashaw's brains. He then stripped the dead tyrant; appropriated his clothes, his horse, as much corn as he could carry; and, having hidden the body under straw, rode off into the desert.

Finally, and after terrible sufferings, Captain John Smith reached a Christian outpost on the Don. Here, again, a great lady—Callamata he names her—regarded him with gracious favor, and furnished him with the means of reaching Hermanstadt, Transylvania. "Received there with much hospitality and gratulation," he proceeded on to Bohemia, where he fell in with Duke Sigismund, who presented him with fifteen hundred golden ducats—a commutation, probably, of his pension.

Of his subsequent desultory wanderings through France and Spain, his visit to Morocco, inclusive of a brief essay at buccaneering, we need not dwell in these pages. In the fourth year of the seventeenth century—he being then only twenty-five years of age—John Smith again set foot in Enland; and soon, from that great vantage-ground, sprang to the full hight of a true hero.

PART II.

HERO AND STATESMAN.

Captain John Smith, soon becoming tired of "rusting his life away," associated himself with a number of gentlemen who were projecting a scheme for conveying a body of colonists to Virginia, in the hope of realizing, in that one respect at least, the dazzling dreams of Raleigh.

Many precious months were wasted in obtaining the indispensable letters patent; and when that was accomplished, the royal red-tapist, James I.—Disraeli the elder's second Solomon—whose "king craft" was mainly made up of small contrivances to hamper the free action of his subjects—ma-

naged at the very outset to sow the seeds of strife and confusion in, it must be admitted, a congenial soil, by sealing up in a box, not to be opened till the adventurers had actually reached the promised land, the names of the men who were to form the Supreme Council of the colony—Wingfield, Newport, Gosnell, Ratcliffe, Martin, Kendall, and John Smith—all, except Smith, found to be, when occasion tested, knaves or fools, with a strong dash of ruffianism and cowardice. "Mostly atheists," writes Captain Smith; and perhaps, with the exception of himself and Mr. Hunt, a Puritan preacher zealous unto death, there was scarcely one amongst them endowed with the earnest will, the indomitable courage, which, not to be dismayed, discouraged, overcome, makes of difficulty a great helper, and, sternly struggling against mightiest odds, holds the fleet angel fast until he bless him.

It consequently happened, owing to the sealed-box contrivance, that when, on the nineteenth of December, 1606, the expedition, in three ships, numbering about one hundred and fifty men, sailed, no one was invested with officially-recognized authority to control the heterogeneous assemblage. Hence anarchy, confusion, distracted councils, at the very outset. Finally, after many mishaps, Virginia was reached. By about the middle of May, the site of Jamestown, on the Potomac, was determined upon, and the colonists went busily to the task of making themselves a home in the wilderness, in the midst of wondering, surprised, fearful hosts of savages. Wingfield was elected first President, and Captain John Smith excluded by a majority from the council. His towering superiority wounded their self-love; but whenever danger threatened—and danger of massacre or of famine was ever present or close at hand during the first years of the colony—the man to whom all eyes were turned was Captain John Smith; and nobly the great man proved his title to the instinctive confidence he inspired.

It is not my purpose, nor have I space, to describe the shifts, the expedients, the daring acts of bravery, by which, through good report and evil report, Captain Smith more than supplied the deficiencies and foiled the treasons of men placed in authority over the struggling colonists. It will suffice to quote the unimpeachable testimony offered to his great qualities by Bancroft, the historian of America:

"Captain John Smith merits to be called the father of the colony which he repeatedly rescued from destruction. His judgment was ever clear in the midst of general despondency. He united the highest spirit of adventure with consummate powers of action. His courage and self-possession accomplished what others esteemed desperate. Fruitful in expedients, he was prompt in execution. Though he had been harassed by the persecutions of malignant envy, he never retained the memory of the faults of his enemies. He was accustomed to lead, not to send his men into danger—could suffer want rather than borrow, and starve sooner than not pay. There was nothing counterfeit in his nature, which was open, honest, and sincere. He clearly discerned that it was the true interest of England not to seek in Virginia for gold and sudden wealth, but to enforce regular industry. Nothing was to be expected there but by labor."

High praise, and amply earned! A genuine hero—a warrior of the working day—was Captain John Smith; and so successful had he worked during three changeful, trying years, that when, in 1609, he was superseded in his governorship, to which the almost unanimous suffrages of his fellow-citizens had raised him, by the nominee of twenty-one peers, ninety-eight knights and countless squires, who had clubbed to purchase a second charter from King James, the young, firmly-planted colony was possessed of four ships, seven boats, a well-fortified town, (as against Indians,) nets for fishing, tools of all sorts, a harvest safely garnered, six hundred swine, and as many horses, goats, and sheep. Thus, by the energy and sound sense of one man, of whom his country may well be proud, the foundation was securely laid of a State in extent as large as France, of which the world-famous city of Washington is now the capital. Let me add that, before John Smith died—and he died young (fifty-two years of age only)—Virginia was covered with rich plantations, of which the exported produce freighted two hundred ships.

Dismissing, then, the political and economic portion of Captain John Smith's American career with a brief memorandum that he discovered and explored Chesapeake Bay, and at a subsequent visit to the New World, in 1615, searched and described Massachusetts Bay—upon the shore of which the Pilgrim Fathers some six years afterward landed and commenced building New Plymouth—I revert to a singularly interesting episode, so to speak, in that career of which "the

beautiful salvage and Indian princess," Pocahontas, is the heroine.

In his ceaseless efforts to conciliate and "trade" with the Indians, giving, in exchange for corn, venison, etc., beads, hatchets, and copper, Captain Smith frequently ascended the river upon which Jamestown was being built. The first time he did so, Captain Smith, after a laborious voyage of a week's duration, came to a group of islands (now Gloucester county, in York River,) to which he gave the name of Powhatan, as being that of the tribe inhabiting them, and of its chief.

Nothing of moment occurred at that time; but not long afterwards, the Indians having ceased to bring in provisions, Captain Smith was necessitated to trade *bon gré, mal gré*, with them. To that end he left Jamestown, and proceeded in a well-armed pinnace to a cluster of wigwams called Kecoughtan. Finding, after much tedious negotiation, that nothing was to be obtained by way of barter, Captain Smith landed his men, and frightened away the Indians by the discharge of muskets in the air. The huts were found to be full of corn, and the English were preparing to help themselves, when the savages, having painted themselves in very terrible guise, returned, armed with clubs, bows and arrows, and bearing a hideous idol before them. It then became necessary to fire upon the poor wretches in earnest. Many of the Indians fell at the first discharge, and the rest fled howling, leaving their god behind. That, however, being an irreparable loss, involving the very existence of their tribe, a deputation soon appeared, offering in exchange for their idol any amount of provisions. The offer was acceded to, upon condition that they should help to load the pinnace, which accordingly returned to Jamestown laden with corn, venison, fowls, and turkeys.

This adventure would seem to have inspired Captain Smith either with unbounded contempt for, or a careless confidence in, the placable disposition of, the natives. During his next ascent of the river he left the pinnace, and taking with him only two men, and an Indian as guide, he went on shore in search of game, and soon found himself assailed by over two hundred yelling savages. The two Englishmen with him were killed—he himself was overpowered, taken prisoner, and conducted in triumph to an Indian village on the Rappahannock. Smith's presence of mind

and fertility of resource did not desert him even in this extremity. He contrived to interest the chief by the exhibition of a pocket-compass, and by "endowing a leaf of his pocket-book with intelligence by writing thereon." They had often heard of the famous Pale-face, and the calm courteousness of their captive so amazed them, that they spent three days in incantations, with the view of discovering the mystery of his character. Not successful in that, his fate was referred to the Supreme Chief, Powhatan, by whom he was sentenced to be first fattened, then killed, and eaten at a solemn feast.

Captain Smith appears not to have taken on flesh very rapidly; but being at last pronounced to be in fit condition, the ceremonies began. Her Majesty the Queen, Powhatan's wife, presented him water to wash with; another amiable lady, with a bunch of feathers to serve as napkin; and he was then invited to quite a sumptuous banquet, which, however, he declined, "not having stomach to eat, being himself about to be eaten."

The next ceremony that was to end his strange, eventful history was forcing his head down upon a flat-stone preparatory to three chiefs battering his brains out with heavy clubs.

At that moment Pocahontas, a girl of about twelve years of age, and favorite daughter of Powhatan, unable to resist the impulse of a gentle, compassionate heart, rushed forward, and, with piteous entreaties, implored that his life should be spared. Her prayers were unavailing; and, as a last resource, she placed her own head upon the captive's, and declared they should kill her before they did the Pale-face. This prevailed. Powhatan pardoned the captive, accepted him as his son-in-law, and promised a large tract of land. In the meanwhile Captain Smith, it was agreed, should be sent to Jamestown, upon condition that he would promise to send Powhatan two cannons and a grindstone.

At that time the English were reduced to great extremity by scarcity of food. Pocahontas caused supplies to be sent them, and was ever afterwards their constant friend and watchful guardian. She traversed woods alone and at night to warn Captain Smith of a meditated attack by her tribe, and to her he ascribes the preservation of the nascent colony from famine and ruin.

So confident did Captain Smith feel in the protection of the beautiful Indian girl, that he determined, when the relations between Powhatan and the settlers were far from amicable, to undertake an embassy to that powerful Chief, attended by only four men. In passing with them through the wilderness, and across the river in an Indian canoe, they came to a fertile, beautiful plain, where, wearied with travel, they lay down to rest, to be presently startled from repose by multitudinous war-whoops from the surrounding woods, as if all the warriors of Powhatan's tribe were about to assail them. There was no cause for alarm. The savage yellings ceased, and Pocahontas came running over the plain with several girl companions. She assured Capt. Smith that no harm was intended; and in corroboration of that assurance, thirty Indian girls, garlanded with green leaves, issued from the forest, and came tripping towards the strangers, round whom they sang, and danced to a wild melody, and in fantastic measure, for more than an hour. At the end, they again plunged into the woods. Soon Pocahontas, with others, returned and invited Captain Smith to visit Powhatan. He readily complied, was received at the village with great honor, and entertained at an *al fresco* banquet by torch-light, which the Captain and his companions very much enjoyed, the pleasure thereof being greatly enhanced by the Indian girls, who, whilst dancing, singing, and waiting upon the pale-faces, continually ejaculated in their own, the Mohican tongue, "Love you not me? Love you not me?" which Captain Smith understood to be their usual mode of welcome.

After Captain Smith left the colony, in 1609, nothing was heard for more than two years of Pocahontas, during which period there was almost continuous war between the Indians and settlers. The

beautiful savage being at last made prisoner, peace in consequence was speedily restored. She, however, continued to principally abide at Jamestown, acquired the English language, was converted to Christianity, and baptized Rebecca by the Rev. Mr. Rolfe, who thereupon married the Virginian Princess, and soon afterwards sailed with her for England.

Her royal rank did not procure her the *entrée* of the English Court, and Captain Smith's petition to the Queen that she might be allowed a pension suitable to her rank and the great services she had rendered the colony in Virginia was not noticed—two circumstances which Pocahontas bitterly resented.

The Virginian Princess, nevertheless, soon became the lion—or should it be lioness?—of the season. Lord and Lady Delaware dragged her through fashionable entertainments innumerable, and she was finally received at the Palace. Better to have remained—ill-starred Princess!—in her father's forest-court. She died at Gravesend in 1619, aged twenty-three, when about to embark with her husband for Virginia. Death in the flush of youth, in a strange land, amongst strangers! Poor Pocahontas! Her child, Thomas Rolfe, received his education at Plymouth at the cost of Sir Thomas Stukely; and it is said—I know not with what truth—that a living ex-Lord Chancellor may, or might, trace his pedigree up to the daughter of Powhatan.

Many other adventures befell Captain John Smith—such as encounters with Algerine pirates and French privateers, during an attempted voyage to New-England; but such comparatively minor matters may be passed over in a life, the unsullied glory of which is embodied in the simple epitaph, "*Hic jacet* Captain John Smith, the Founder of Virginia."

Captain Smith died on the twenty-first June, 1631, at Willoughby, aged fifty-two.

From Chambers's Journal.

WIND THE VITAL CURRENT OF THE WORLD.

ALL true power is simple in its grandeur, and grand in its simplicity; this is especially the case with Nature in all her workings: she moves not with sudden start, but with calm progression. Even when she seems most perturbed, her agitation is but the disguise of her order.

There is none of the forces that rule the material world which appears so arbitrary and uncertain as the wind that bloweth where it listeth; yet is there none more clearly subject to fixed laws, or more beautifully dependent upon settled causes. Whether it be the tornado uprooting the forest, the zephyr just stirring the leaves, the simoom of the desert, or the monsoon of the ocean, all wind is the result of agencies directly traceable to their sources. It does not disturb the harmony of creation—it preserves it.

There are two properties of air which combine in producing wind—its capability of expansion by heat, and its elasticity. Air is not heated at the top by the rays of the sun; they pass through it with very little effect. But when they meet and are stopped by the earth, they heat the earth so much that the air immediately over its surface becomes much hotter than that above. Now, because hot air must expand, the heated portion rises to the top, overflowing the colder air around it; but this creates a diminished density below, and the surrounding cold air, by its own elasticity, rushes in to supply the deficiency. Thus is caused wind: an *inward* rush of cold air below, an *outward* rush of warm air above.

This may be illustrated and proved by the following simple experiment. Light a fire in one of two rooms having a door of communication between them. When the room has become warm, open the door, and hold a lighted candle in the doorway. It will be found that, on holding the candle near the floor, the flame will be strongly drawn toward the heated room by the incoming current of cold air, while near the ceiling it will be driven toward the

cold room by the outgoing current of hot air. In the middle, at the point exactly between the two currents, the flame will be almost stationary.

The power of the sun to heat the earth is, of course, greater in places under its vertical than under its oblique rays. At the equator, therefore, the air is always rising from its heat; consequently, the cold air of the poles is continually rushing each way toward the equator, along the surface of the earth, while at the top of the atmosphere the hot air of the equator is constantly rushing toward the poles.

The question naturally arises here—How comes it to pass, then, that the winds in our own country and the temperate zones generally, blow often from the equator toward the poles? The reason is simple. The overflowing current of hot air from the equator becomes cooled in traveling through space; by the time it reaches the thirtieth parallel of latitude in either hemisphere, or thereabouts, it is colder than the current rolling in the opposite direction below, the tendency of which is, of course, to get warmer in its progress; accordingly, the currents change places, and that which was the upper becomes the under, with a contrary movement. About the polar circle, their relative position is again changed by like causes, and the air which was uppermost at the equator resumes its place above. Warm air from all points converges and descends upon the poles, the cold air of which sinks and spreads in every direction, giving rise to the polar gales common in high latitudes; so that at the poles there is a constantly descending current of hot air, while at the equator there is a constantly ascending stream.

So far as we have gone at present, we have accounted only for winds to and from the equator and poles—that is, for north and south winds. What, then, occasions easterly and westerly winds?

These arise from the influence of a totally different force—namely, the earth's



rotation on its axis. The earth is constantly rolling round from west to east with great velocity. As the earth is spherical, this velocity gradually decreases from the equator, where the speed is greatest, to the poles, at which it is nothing. Now, when the cold air is driven toward the equator in the manner before explained, it receives no increase of momentum eastward, and, therefore, the nearer it gets to the equator, the more it is left behind in the west by the quicker advance eastward of the earth's surface there; hence its current becomes a north-east or south-east wind. The westerly winds are the converse of this. The hot air rolling from the equator toward the poles with a strong easterly direction, gets far in advance of the more slowly moving earth there, and blows more and more from the west.

Such is an outline of the general laws which rule the course of the wind. By their operation, a constant and wonderful circulation of currents is kept up in the atmosphere, purifying and regulating its temperature. Just as in the human body the life-blood travels through every part, giving vitality and strength to the whole, so the air, which may be truly called the vital current of the world, is in constant motion. It visits every clime, to bless mankind with health and energy, to roll the clouds of heaven, bringing the showers that raise the blossoms of spring and the fruits of autumn, and to waft from shore to shore ships laden with the riches of the earth.

These general laws are nevertheless subject to many modifying influences, such as screening clouds and the difference of seasons, which decrease the heating power of the sun on the earth, and vary the relative warmth of the currents in different places. The unequal and irregular distribution of land and water also exerts a dis-

turbing influence; for the surface of the earth becomes much more rapidly heated than that of the sea, and cools much more quickly. Thus the presence of large continents or oceans affects the direction of the wind.

To this last influence is due the refreshing sea-breeze, so ardently longed for by those condemned to remain in London during the dog-days. On a hot day, the air over the sea is much cooler than that on land, and so there blows a delicious breeze from sea to shore; but, as land cools more quickly than water, after sunset the land-breeze blows, from shore to sea. This may be easily understood and illustrated by placing a saucer of warm water, to represent land, in a dish of cold, to represent sea. The flame or smoke of a candle will be blown from every side toward the saucer by a mimic sea-breeze. If you fill the dish with warm, and the saucer with cold water, an exactly opposite effect will be produced, corresponding to the land-breeze.

The great subject of wind has been but just glanced at here; a volume might be written upon what is known concerning it, and much remains to be discovered as to the causes of whirlwinds, hurricanes, and storms of all kinds, as well as of various local winds, confined to certain countries or parallels of latitude. Many interesting fields of inquiry lie open to the student, and many ardent votaries of science are eagerly exploring them; but from every fresh discovery we learn again the old lesson with which we set out, that Nature, even in her wildest mood, works in harmony. It was this lesson which the poetic imagination of the old Greeks taught by their legends of the music of the spheres; and every investigation from their days to ours has confirmed it to the seekers after wisdom.

ARCHÆOLOGISTS interested in Greece have just had a new sensation in the discovery at Athens, by an English architect, of the ancient theatre of Bacchus, on the southern slope of the Acropolis.

LOPE DE VEGA, in describing an afflicted shepherdess weeping by the seaside, says that the sea joyfully advanced to gather her tears, and that, after having inclosed them in shells, converted them into pearls.

VOL. LVI.—NO. 3

PERFECTION. — A gallant youth was examining some flowers in a garden, when a beautiful girl, who was one of the party, exclaimed: "O sir! this pea will never come to perfection!" "Permit me, then," gently taking her by the hand, and walking toward the plant, "to lead perfection to the pea."

Who is the most popular military commander? Martial Ardor.

From Bentley's Miscellany.

D R E A M L A N D .

It was a conception worthy of a true poet to show the depth of his sympathy for the Great Masters of English Song, by devoting the outpourings of his Muse to their special illustration, after the manner which Mr. Kent has chosen.* Tracking their footsteps through their own familiar haunts, and conjuring up associations inseparably allied to their memories, he has, he says, in his modest, reverential preface, "striven to unite, upon each occasion, within the framework of a single picture, some shadowy reflection at least of the contrasting yet harmonious interests derivable from the charms of Biography and Topography."

This pleasant task has been happily accomplished; for there is not one of the many pictures here collected which is not perfect in all its parts—whether we consider the sentiment by which it is inspired, the truth of the local color, or the beauty of the setting. With a thorough appreciation of character, Mr. Kent combines an admirable descriptive power, and a masterly command of most mellifluous verse, so that, while the mind is fully gratified, the senses—so to speak—are equally charmed. In the course of his picturesque pilgrimages, the shrines of twenty of our most famous poets are visited, and a wreath worthy of the image is placed at the feet of each. The general nature of these votive offerings may be gathered from the following enumeration. First we have "Shakspeare at Shottery," where he first told his love under the trellised porch of Anne Hathaway's cottage. Then comes "Chaucer at Woodstock," where he, who has been likened to "the morning-star," sits dreaming of the immortal *cortège* that wended from Southwark to Canterbury. To him follow in succession, "Surrey at Windsor"—"Spenser at Kilcolman"—"Milton at Cripplegate"—"Butler at

Earlscroomb"—"Dryden at Soho"—"Pope at Twickenham"—"Young at Welwyn"—"Thomson at Richmond"—"Shenstone at the Leasowes"—"Falconer at Sea"—"Johnson at Streatham"—"Goldsmith at Edgeware"—"Burns at Mossgiel"—"Cowper at Olney"—"Byron at Newstead"—"Shelley at Marlow"—"Scott at Abbotsford;" and, lastly, "Wordsworth at Rydal." In this list there are omissions which will, at once, strike everybody; but, as the French proverb says, "What is deferred is not lost," and we hope, before long, to find that Mr. Kent has given us such as are yet wanting to render the British galaxy complete.

Of the treatment of his various subjects, Mr. Kent says: "Sometimes, as in the limnings of Chaucer and Scott, I have surrounded them with the shadowy forms of the creatures born of their imagination. Sometimes I have contented myself with celebrating a single incident, selected from the pathetic record of the career then under commemoration; as where Pope is described awaiting, in the unwonted solitude of his home at Twickenham, the arrival of the friendly portrait-painter, summoned to perpetuate with his pencil the angelic grace of age still lingering upon the features of the dead mother then lying upstairs in the darkened death-chamber; or as again, where Lord Byron is seen with the boxing-gloves yet upon his hands, suddenly interrupted in a bout with one of his wild companions, gazing for a moment with sullen anguish after the funereal cavalcade bearing to the grave the remains of his mother, unwept and almost unattended. Occasionally, moreover, as in the instances of Surrey and Spenser, I have opened up to view in dim perspective the checkered vista of the musing poet's life."

We have selected, as our first example of Mr. Kent's method, the striking contrast between the "reverent sorrow" of Pope and the "sullen anguish" of Byron.

* *Dreamland*. With other Poems. By W. CHARLES KENT. Longman & Co.

POPE AT TWICKENHAM.

Why sits that silent watcher there,
Still brooding with that face of care—
That gaze of tearless pain?
What bonds of woe his spirit bind—
What treasure lost can leave behind
But stings within his brain?

He dreams of one who lies above,
He never more in life can love—
That mother newly dead:
He waits the artist friend whose skill
Shall catch the angel-beauty still
Upon her features spread!

A reverent sorrow fills the air,
And makes a throne of grief the chair
Where filial genius mourns:
Death proving still, at direst need,
Life's scepter wand—a broken reed,
Love's wreath—a crown of thorns!

BYRON AT NEWSTEAD.

Strange memories of dead childhood throng
That void heart yearning o'er the past;
For thoughts less dark than sad belong
To strife that can not last—
When, quenched with Life's invested brand,
Run out with Time's swift gliding sand,
Expires the wrath of angry years:
Alone before a lonely tomb
Remorseful love blends grief with gloom,
A sullen grief too harsh for tears.

One moment on the threshold there,
With clenched hands strung for sportive
blows.
No prescience his of after care,
Of glory, or of woes—
He thinks not of his new-born fame
Presaging an eternal name
Upon Earth's grand poetic scroll,
But here all childhood's joys have flown,
How by his hearth he broods alone,
And tears unshed flood o'er his soul.

The interior of Abbotsford is sketched
to the life. We would willingly give the
whole description, but must content our-
selves with a few passages:

Within a noble Gothic room,
Adorned by many a casque and plume,
A homely form with tranquil air,
Sits musing in an antique chair.

Stretched on the hearth before his feet
Lie basking in the grateful heat
Two shaggy deer-hounds, grim and gaunt,
Their life's delight his steps to haunt.
Around on oaken panels hung
The sword unsheathed, the bow unstrung,
The dinted target, the rusty mail,
Reveal what memories here prevail:

There, 'twixt the mullioned casements, bright
With sidelong gleams of silvering light,
Erect in somber nook disposed,
The warrior-knight with visor closed!
Above, what once were blazoned flags,
Mere splintered shafts and tarnished rags!
While strewn o'er table, stool, and floor,
Lie littered heaps of student lore—
Rare tomes in sallow parchment skin,
Dry husk without, sweet core within:
With varied volumes scattered round
Morocco pied, or calf embrowned:
Battalions of like thought-born elves
Ranged trimly on the laden shelves—
The genius of the mighty dead
O'er all the magic pages spread.

We must leave an exquisite picture un-
finished to exhibit the truthful portrait of
the bard of Rydal.

A gaunt, tall shape, without one touch of
grace;
A simple, sentient, patriarchal face:
Meek eyes, that view all life with looks of
peace;
Grave lips, whose smiles are blessing of in-
crease.
A dark coat buttoned o'er his Quaker vest;
His knitted hands on calm crossed knees at
rest;
His silvery locks, on saddened brows reveal-
ed,
No more beneath the ungainly hat concealed,
Now placed beside his large, loose-jointed
feet—
He sits and thinks in this dear home retreat.
Here sits and broods on Earth's neglected
things—
The merest midge on gauzy, fragile wings;
The atom pollen, floating from the bloom—
Dust-seed of flower-dye, verdure and per-
fume;
The wayside boulder, flicked with lichen
stains,
Like "frozen dreams" on wintry lattice
panes;
The gnat's far bugle sounding by his ear;
The clinking scythe-hone heard across the
mere;
Sweet zephyrs blown through new-mown
meadow hay
Past thymy barrow and faint fading may,
His mind the microscopic lens that shows
The hidden charms its crystal depths dis-
close—
Such are the sights, the sounds, the scents
that stir
His thrilling heart-string like a dulcimer
With hushed vibrations latent in its chords,
Waking to music in melodious words!

Have we not quoted enough from Mr.
Kent's attractive volume to justify our
praise?

From Chambers's Journal.

THE SUN'S ATMOSPHERE.

WHEN Newton discovered, in 1701, that a ray of light from the sun, admitted into a dark room, through a small circular aperture, and passing through a prism, produced an image colored with the hues of the rainbow, he little thought that he was furnishing to the scientific men of a succeeding age, not only the most delicate test of the presence of certain metals in bodies subjected to analysis, but also the means of investigating, with at any rate some probability of success, the composition and nature of bodies apparently quite beyond the reach of human science.

For upward of a century, scientific minds appear to have been content to allow Newton's discovery to remain stationary at the point at which he left it; and it was only in 1802 that it was observed that if the *solar spectrum*, or colored image resulting from the passage of a ray of sunlight through a prism, was taken from a ray passing into the room through a slit in the shutter, instead of through a circular aperture, it was crossed by innumerable black lines, in place of being a continuous stripe of colored light. Some years later, a map of some six hundred of these lines was published, and, more recently still, one in which upward of two thousand are marked. An examination of the spectra produced by rays proceeding from the stars, planets, and other sources of light, proved that lines exist in the spectra produced by lights of all kinds, but that these lines differ in number and position according to the source of light employed, while at the same time any one luminous body will invariably produce the same lines in the spectrum.

It had been remarked that certain of the lines in the spectrum produced by light from the sun appeared only at particular periods or under peculiar conditions of the atmosphere. This was accounted for by Sir David Brewster, who found that if a ray of light was made to

pass through a colored gas, such as nitrous acid, dark bands would appear on the spectrum; from this he concluded that these variable lines in the solar spectrum were due to the influence of the earth's atmosphere on the light of the sun, and that some of the fixed lines were also to be explained by the absorptive power of the air. It is remarkable that the bands produced by the transmission of light through different vapors are quite independent of the color of those vapors, some colored vapors producing no lines whatever, as, for example, the red vapors of chloride of tungsten; while nitrous acid, which is also a *red* gas, produces black lines in the *blue* part of the spectrum.

Thus far, nothing had been discovered which could at all explain the cause of these phenomena; nothing was known but the bare fact, that certain kinds of light produced certain lines in the spectrum, and that some gases—amongst others, those composing the air—had the property of producing black lines on the spectra taken from rays of light passing through them. These facts, however, were sufficiently remarkable to attract attention, and investigations were made, and experiments instituted by the principal chemists in England and abroad, of which and of their results it is now our purpose to take a brief survey.

It is a fact well known to chemists, that certain substances have the property of imparting a particular color to any flame in which they are burned; for instance, common salt will produce a yellow flame; salts of strontium and lithium, a crimson one, etc.; and this property has been utilized by pyrotechnists in the preparation of the colored fires which have become so essential to the transformation scenes of our pantomimes. Some of these colors are sufficiently characteristic of the salts by which they are caused, to form a rough test of their absence or presence in a mixture of different substances; others,

on the contrary, have to all appearance exactly the same tint when produced by either of two salts.

When the phenomena mentioned above in connection with the solar spectrum became known, it occurred to Professors Wheatstone, Miller, and others, to observe what kind of spectrum would be projected by a ray of light proceeding from a flame colored by one of the salts to which we have just directed the reader's attention. The experiments to determine this were at first conducted in the following manner: A portion of the salt under examination was dissolved in alcohol, which was then burned in a common spirit-lamp; a ray of light proceeding from the flame was directed through a vertical slit, and passed through a prism into a telescope, by which means the spectrum could be observed more accurately than if it had been simply projected on a screen. These investigations fully proved what had been previously suspected by those who made them—namely, that the substances which produced flames of the same color to the naked eye could be readily distinguished by the difference between the spectra they produced. The salts of lithia and strontia, which, as has been before mentioned, produce a brilliant crimson color, have spectra differing very markedly from each other, that of lithia being characterized by a single bright red band crossing the spectrum, whilst that of strontia exhibits several red bands, besides a well-defined blue band.

The success of these experiments induced further investigations, and Messrs. Kirchoff and Bunsen, by using improved apparatus, and examining a large number of salts, succeeded in building up, on a foundation which had been already laid, a system which bids fair to become the most accurate and expeditious mode of determining the composition of bodies submitted to the chemist for analysis that is yet known. These two gentlemen commenced by examining the spectra produced by a number of salts ignited in a gas-flame, and they discovered that a metal always produced the same bright lines in the spectrum, whatever substance it was mixed with, although it was found that a higher degree of volatility in the salt or salts under examination increased the facility with which the metallic base could be detected. As, however, there are only certain metals that are capable of

being thus ignited in a gas-flame, recourse was had to the electric spark, which was found to answer equally well, as the intensity of the heat from this source is so great, that by its aid all the metals can be volatilized and examined by the prism. One remarkable observation was made when the voltaic arc was thus used for the purpose of spectrum analysis; it was noticed that certain bright violet lines were produced in the spectrum, which did not seem to be characteristic of any metal, but were common to all; and it was found that these lines were caused by the atmosphere itself becoming ignited by the intense heat, and that they disappeared if the experiments were conducted in an atmosphere of hydrogen. Another result of these experiments was the discovery that certain bodies, which had always been supposed to be extremely rare, were pretty generally diffused in small quantities throughout all nature; lithia and strontia, for instance, were found in the most unpromising materials, one of which was a Flanders brick. By this method of analysis, not only can the presence of one metal be detected, but the exact composition of a mixture of metals can be determined. The spectra projected from some metals are very simple; that of sodium is crossed merely by a double yellow band; while in that of iron there are seventy bands in a portion of the spectrum comprising only about a third of its entire length. The delicacy of the test may be imagined, when it is stated that the $\frac{1}{100,000}$ th part of a grain of sodium is sufficient to produce the yellow band characteristic of the metal.

In the course of their investigations, Messrs. Kirchoff and Bunsen actually discovered two new metals, which they named *coesium* and *rubidium*, and which would probably never have been discovered by any other means; their resemblance to potassium being so strong, that all ordinary chemical analysis would have failed to detect the difference. They were both found in the water of Durkheim spring in the proportion of three grains of chloride of coesium and four grains of chloride of rubidium to a ton of water.

These experiments, although of such high importance as a mode of analysis, had as yet thrown no light on the cause of the dark lines in the solar spectrum, all the lines marked out by the different experimentalists as belonging to particu-

lar metals being bands of color more intense than the rest of the spectrum. It was reserved for Kirchhoff, the principal promoter of the experiments already made, to form a theory which, for its boldness and originality, is almost unequaled in the annals of modern science, while at the same time it is within the bounds of probability, and may very likely, on further investigation, be found capable of a demonstration almost equivalent to absolute proof.

The basis on which Kirchhoff founded his theory was an observation made in 1849 by Foucault, a French chemist, who had made some interesting experiments on the spectrum cast by the electric light. Having remarked a particularly brilliant line in the spectrum cast by the voltaic arc, which appeared to occupy the same position as one of the most marked of the dark lines in the solar spectrum, it occurred to him to cause a ray of the sun to be reflected through the electric light; and he found that, instead of the bright line of the electric spectrum neutralizing the dark line of the solar spectrum, that line became stronger, and that, if the two spectra did not exactly coincide, that part of the electric spectrum which was uncovered showed a bright line, which contrasted forcibly with the dark line of the remainder. He then tried the effect of reflecting a ray of light from the voltaic arc back through the arc, and the result was similar; the line which in the ordinary spectrum was bright became black when the light was reflected through itself.

Kirchhoff, probably remembering these experiments, endeavored with success to reduce the principle which they illustrated to a general system. He chose sodium for his preliminary researches, it being the metal which produces the simplest spectrum, and he found that if the light of the voltaic arc is passed through the flame colored by sodium, the yellow band characteristic of this metal is effaced, and its place is taken by a black band. Further investigation showed that the same effect was produced if the electric light was passed through an atmosphere of volatilized sodium. These results were

confirmed by experiments made with barium, strontium, magnesium, etc.; it being found that in all cases the light transmitted through these metals, when in a state of ignition, produced black lines on the spectrum, corresponding with the bright lines produced by the light proceeding from the metals themselves.

From these facts, Kirchhoff argued, that in all probability the lines in the solar spectrum are caused by the intense light from an incandescent body passing through a luminous atmosphere. Having come to this conclusion, he tried to find out whether any of the lines in the solar spectrum corresponded with the lines produced by known substances. For this purpose, he made use of an ingenious apparatus, by which the spectrum from a ray of sunlight was projected above the spectrum of the metal to be compared with it; in this way, those lines which were common to both spectra would form a continuous line through the two, being black in the solar spectrum, and bright in the other one. In this manner, it was found that the spectral lines of many metals, such as sodium, potassium, chromium, magnesium, etc., correspond exactly with some of the principal dark lines in the solar spectrum. The theory, then, that Kirchhoff brings forward as the explanation of the lines in the solar spectrum is, *that the sun is an incandescent nucleus surrounded by a luminous atmosphere*, of which potassium, sodium, and the other metals which have been found to exhibit similar lines to those produced by the sun, are some of the constituents.

This theory, although not devoid of probability, has not yet been subjected to a deep enough examination to be considered as established; but, on the other hand, it has too many facts in its favor to justify its being put on one side as extravagant and presumptuous. It may be that the progress of science is leading us to a mode of discovering the composition of extramundane bodies, and that we shall in time be able to say what the sun is made of, with as much positiveness as we can now affirm that the earth travels round the sun, and the moon round the earth.

From the St. James's Magazine.

T I M E A N D S P A C E .

BY CAPT. A. W. DRAYSON, R.A.

A CLOUDY-LOOKING object is observed far on the distant horizon, its jagged and cut outline indicating that it is a mountain just visible above the ocean wave. It is more than fifty miles from us—a distance which we could not accomplish on foot in less than twenty-four hours. It is a long way, is fifty miles; and we should feel that it was so, if we were compelled to tramp it. Everybody knows what a mile is; so that a distance of fifty miles is at once realized, and is therefore familiar to our senses.

The sun is shining on that distant mountain, and his rays cause the ocean to glitter like a lake of molten silver. We can not look, but we can merely glance at this glowing orb, whose genial warmth is now recalling the dormant animal and vegetable life into full action; and we remember that the Sun is distant from our Earth about ninety-five million miles—95,000,000! What an enormous distance to contemplate—how immeasurably more vast than any amount of space with which we are intimately acquainted on Earth; for even our longest voyages are scarcely more than twelve thousand miles.

Yet the Sun's distance is trifling compared to that of other orbs in the heavens. For at midnight in the present month (May) we shall observe in the southern heavens a brilliant so-called star, which shines with a steady pale light. That orb is really the planet Jupiter, which is then distant from the Earth about four hundred million miles, or more than four times as far from us as is the Sun.

In the same part of the heavens in which Jupiter is seen, we may observe a large red-looking star, which also shines with a steady light. This is the planet Saturn, then distant from the Earth more than eight hundred million miles, or more than twice as far from us that Jupiter is.

Let us now reflect upon the amount of space with which we are dealing.

First, we have considered the distance of a mountain on the horizon, which was fifty miles from us. We then mentioned the Sun's distance from the Earth, and we found this more than eight thousand times that of our longest voyages. Next we find two planets, one of which is more than four times, the other more than eight times, as far off as is the Sun from this world.

We are thus speaking of enormous distances, yet we can to a certain extent comprehend them, for we can compare them with terrestrial distances, with which we are acquainted. We might even refer to a more vast portion of space, and speak of the number of miles which intervene between us and the most distant known planet of our system, namely, Neptune, which is thirty times as far from the Sun as our Earth is.

But all these miles are but measurable portions of space, whose entirety is infinitude, incomprehensible, like eternity, to which it seems to bear a great analogy.

We can not comprehend Eternity, nor can we grasp the idea of infinite Space. Let us speak of seconds, minutes, hours, years, centuries, or millions of centuries, and we can to a certain extent understand the periods indicated; and by comparing these with well-known intervals of time, we seem to grasp and realize mentally those years and centuries. When, however, we endeavor to think of century occurring after century in one endless round, never ceasing or varying, our minds are almost exhausted by the effort, and we return in thought to some well-known subject, feeling like the exhausted, unskilled swimmer, who again gladly feels the solid ground beneath him after he has ventured out of his depth.

As it is with Time, so is it with Space; we can comprehend all that is minute—such as feet, yards, furlongs, miles, leagues,

and thousands of miles. The distance which separates our Earth from the planet Neptune, although nearly two thousand eight hundred million miles, is still made intelligible to our senses by comparison. When, however, we know that the nearest of the fixed stars is immeasurably beyond the most distant planet of our system, and that beyond this star there are probably others equally as distant, and so on, we become lost amidst the multitude of recurring stars, or incapable of entertaining an idea of that which may be termed endless space.

Is it that space, like all we see around us, is a creation of the Infinite, and that even now space itself is being created to contain worlds not yet formed?

We are, in our present condition, incapable of fully realizing the infinitude and omnipotence of Deity; although we can, according to our capacities, realize a portion thereof. So space, in its fullness, is incomprehensible; let us but take a portion of it, and few among us see in it any thing wonderful, or worthy even of much reflection.

Let us, however, examine how portions of space are measured, and how, by means of the most simple rules, we are enabled to know that we have a tolerably accurate idea of the size and distance of the various worlds, and hence of the scale upon which the universe is planned.

Among almost all civilized nations there is what is called a "standard measure," the length of which varies according to the taste of the inventor or the time of the invention. Thus we hear of the cubit, the Greek foot, the French meter, the English yard, etc.; and these measures are well known in each country, so that, when referred to, any person can indicate about the distance spoken of.

An English mile is no doubt a well-known distance to all our readers, this mile consisting of 1760 yards. Thus, any definite measure, such as a yard, being established, we can, by repeating this yard any number of times, ascertain the extent of one, two, or more miles; thus, even sixty or seventy miles may be measured on Earth, and we may ascertain the distances which separate towns, villages, rivers, and other parts on the Earth's surface.

So far, measurement of distances appears a very simple thing, as easily understood as the process of ascertaining the number of yards in a piece of cloth or ribbon—and

so it really is; but now let us suddenly attempt an apparently daring feat, which, however, is one that centuries ago was attempted by the Greeks. We purpose measuring the size of the world, and finding how many miles it is round.

To measure one mile was indeed a simple labor; we had but to repeat an operation with a yard measure several times, and the length of a mile might be ascertained. To measure sixty or seventy miles in the same manner would be tedious, although quite practicable, so we will not here mention the usual plan of measuring long distances on Earth, for to do so we should have to deal with matters of too scientific a nature for the pages of this Magazine. It is sufficient for us to know at present that we *can* ascertain where the exact spot is which is sixty or seventy miles from that on which we are standing, and we can then measure the world. But to do so, we must cast our eyes upward, and turn our attention to the little twinkling stars, which we have already seen are the only true guides to our measurement of time.

We will take an imaginary position anywhere on the Earth's surface—suppose at Greenwich; we will then select some star for observation, and to simplify the matter we will assume that this star passes exactly over our heads during the night. To ascertain that it does so, we must use an instrument; but either by means of a plumb-line, or a reflecting surface such as mercury, we can be certain when the instrument is truly perpendicular, and hence when the star is exactly overhead.

After observing during several nights, and finding that the same star was at a particular time exactly overhead, we might then proceed to a station north of Greenwich, and distant about 69 miles; and if we again made observations on the same star, we should find that, instead of its now being exactly overhead, it seemed to pass at some slight distance from that point.

We could not express the distance of the star from the point overhead, in miles, or yards, because we know not the various distances of the stars; another method is, therefore, adopted, which is as follows:

All circles are divided into three hundred and sixty parts, each of which is called "a degree." From the point exactly overhead down to the horizon is one

fourth of a circle, and therefore this space contains ninety degrees; we can therefore speak of a star as one, two, or more degrees distant from the point exactly overhead.

Now let us return to our station 69 miles north of Greenwich, and we will suppose that we find that the star observed to be overhead at Greenwich, is, at this station, one degree exactly from that point. It might seem premature to say at once that we had then measured the size of the world; yet such a statement would be correct. For we should have found that 69 miles caused the star to appear one degree from the point overhead, therefore, twice 69 miles would produce a difference of two degrees, and so on, till 360 times 69 miles would give us the actual circumference of the Earth—that is, it is about twenty-four thousand eight hundred miles in circumference.

Thus by observing a star, and, finding how far it is necessary to move on the Earth's surface in order to cause that star to alter its elevation by one degree, we can at once obtain the number of miles contained in one three-hundred-and-sixtieth part of the earth's circumference.

We have endeavored to give the most simple illustration, in order to explain the means by which the size of the Earth is known, and a star was spoken of which passed exactly overhead at a particular locality. It would not, however, be absolutely necessary that such a star only could be made use of, for any star might be selected; and when we found that its height above the horizon altered exactly one degree in consequence of our change of position, then we should know that we had traveled over one three-hundred-and-sixtieth part of the Earth's circumference. Again, it would not be necessary to alter the altitude of the star by exactly one degree, for half a degree, or half a dozen degrees, would serve equally as well.

The size of the planet on which we reside is, therefore, as well known as that of our houses, and consequently we can at once tell the number of miles which separate two places, if we know how many "degrees" they are from each other. For example, Stockholm is about fifty-nine and one third degrees north of the equator, whilst the Cape of Good Hope is nearly thirty-four degrees south of it. The two localities are, therefore, separated by about ninety-three and one third degrees; and

as they are nearly in a line joining the two poles of the earth, the distance between them may be found by multiplying ninety-three and one third by the length in miles of a degree.

After we have measured the size of the world, we may attempt many problems which might previously have appeared impossible; for science advances by a series of steps, and great works are thus accomplished, just as we perform a journey on foot. If we recline and view a distant mountain, we often doubt whether we can ever reach it—and those who rarely use their limbs would deem the effort futile. By a steady perseverance, however, mile after mile is passed; and if the journey be not accomplished to-day, it may be to-morrow, or next day, or probably a week hence. Many years elapsed after the earth was supposed to be like a ball in form before an attempt was made to measure it. Centuries again passed, after this problem was solved, before another depending thereon was attempted, this other being the distances of the various celestial bodies which occupy a portion of space.

Not only in consequence of its size, but also from the facility with which certain details are seen on its surface, the moon was in the earliest ages supposed to be the nearest celestial body to the earth. Modern observation has proved this supposition to be correct; and when we consider the amount of space which intervenes between our world and the various fixed stars, we may by comparison call the moon within a stone's throw of us. The method adopted for finding the moon's distance is as follows:

Two localities are selected on opposite sides of the earth—one we will suppose to be Stockholm, the other the Cape of Good Hope. The direct distance in miles between these two stations is known, and also the number of degrees between the two. An instrument is placed in position both at Stockholm and the Cape, by means of which degrees can be measured.

The two stations are, we will suppose, exactly ninety-three and one third degrees distant from each other. Then, if two stars were at the same instant exactly vertical at each place, these two stars, on account of their immense distance, must also be ninety-three and one third degrees distant from each other.

If from these two stations the distance in *degrees* of any celestial body from the

point, or star overhead, were measured when that celestial body was at its greatest height, then the distance in degrees that this body was from the star overhead at the Cape, added to the degrees that it was from the point overhead at Stockholm, would amount to exactly ninety-three and one third degrees, supposing that the distance from the earth, in miles, of the body observed, was infinite. If, however, the distance of the body were not infinite, then the sum of the degrees would be more than ninety-three and one third, and according as the celestial body was very near or far from the earth, so the excess above ninety-three and one third would be greater or less.

Suppose, for example, that the sum of the two distances amounted to ninety-four and one third degrees when the moon was observed, then we should know that a line drawn from the Cape to the center of the moon formed an angle of one degree with a line drawn from Stockholm to the same point. Knowing the distance between Stockholm and the Cape, the moon's distance in miles from either locality could be at once calculated.

We have used the word "calculated;" and this may lead some readers to imagine that the process of calculation is very difficult. A few preliminaries being learned, however, renders it very simple. In fact, the distance of the moon might be obtained, when we know the data mentioned above, by the aid of a ruler and pencil; for we could draw two long lines forming an angle of one degree with each other, and then measure where the two lines were just one inch apart; then, from these points to the junction of the two lines would represent the distance of the moon from the earth, whilst the one inch represented the distance between the Cape and Stockholm. If between the points and the junction of the two lines were forty inches, then forty times the number of miles between the Cape and Stockholm would give us the distance of the moon: hence, from knowing the former we become acquainted with the latter.

From observations of this description, it is found that the moon is sometimes at a greater and at others at a less distance from the earth—the mean of these, however, amounts to about two hundred and forty thousand miles.

The method which we have mentioned as that by which the moon's distance is

obtained, might be adopted to obtain the distance of the sun and the other celestial bodies, except, that, owing to the vast amount of space which intervenes between our planet and the central orb, the angle formed by two lines drawn from different portions of the earth to the sun is so small, that great uncertainty would exist in the result.

If we had a friend on the moon who would make observations at the same time that we did on earth, and who would measure the distance in degrees between the earth and the sun at the same instant that we measured between the moon and the sun, then the problem of the sun's distance could be at once solved. At present, however, the means of transit to the moon are very little known, and consequently we have to seek other methods for the advancement of our knowledge connected with space.

More than a thousand years ago, however, a very good idea was promulgated connected with the moon and the sun's distance—this was, that when the moon was exactly half illuminated, then a line from the moon to the sun would be exactly at right angles to a line from the earth to the moon. If, at this period, the distance in degrees between the moon and sun were measured, then two angles of a triangle would be known—and hence the third, because the three angles always amount to one hundred and eighty degrees. The three angles being known, the triangle can be drawn, and as one side—namely, the distance in miles of the moon from the earth—is known, therefore the other sides could be measured or calculated, and one of the other sides is the distance of the earth from the sun, which is the quantity required to be measured.

Nothing could be more simple in theory, but in practice the problem is a failure, on account of the irregularity of the Moon's surface rendering it impossible to tell when she is exactly half illuminated.

It was not until about a hundred years ago, that another and very ingenious plan was suggested for obtaining the Sun's distance. This was by observations made during the passage of the planet Venus across the Sun's disk. By observing how far in degrees Venus separated herself from the Sun the proportion between the Earth's distance from the Sun and that of Venus was known—the actual distance in miles of either was not known, but merely the

relative distances. The proportion also was known between the size of the Sun and its distance—that is, if it were twenty million miles from the Earth, it must be so large; if forty millions, so large; and so on. Then two or more stations were selected on opposite sides of the Earth, and from these Venus would appear to move across different portions of the Sun's disk. Then the *difference* in the times of passage across the sun, compared with the whole time of passage, afforded data sufficient to calculate the actual distance of the Sun from the earth. To explain this problem fully would occupy nearly as many pages as are allowed us for the whole of this article; we can, therefore, merely mention the means adopted, and give the result obtained—which is, that we are about ninety-five million miles from the Sun.

This was one of the most important discoveries connected with modern astronomy, for it at once gave us the scale of the universe, and enabled us to extend our points of measurement from the Cape and Stockholm—a distance of a few thousand miles—to two points distant one hundred and eighty million miles from each other; for in consequence of the earth moving round the Sun, it travels round a circle the diameter of which is that number of miles in length.

When we know the diameter of a circle, we also know its circumference, the proportion being about as seven to twenty-two. Therefore, from knowing the distance of the earth from the Sun, we know how many miles we travel each year, and we find that these amount to nearly six hundred million, a distance over which an express train could not pass under thirteen thousand years.

This enormous amount of space, however, is comparatively nothing, when compared to that which intervenes between us and the fixed stars. To realize how vast this is, we ought first to make an experiment as follows:—Take a telescope, and direct this upon a brick wall which should be at a distance of a hundred yards or so; count how many bricks are seen to extend across the telescope; then advance a few yards nearer to the wall, and again examine with the telescope how much larger each brick appears, and consequently how many have disappeared. We shall then find how great an influence is produced on the apparent size of each brick by the change of position from one end of

a room to the other. If with the aid of two fine hairs placed in the telescope we were to measure the actual length of a brick, we should find that this length appeared to increase in consequence of our approaching it only a few yards.

Having tried this experiment, we could then appreciate an exactly similar one connected with the Stars; for the Earth, which travels around a circle, the diameter of which is one hundred and eighty million miles, must be at one time of year much nearer certain stars than at others. If, then, we select two stars, which are close together, and arrange our telescope and the hairs in it so as to measure the distance between these two—first when the Earth is nearest to them, and again when it is (six months after) most distant from them—we can comprehend how vast must be the distance between these if we find no alteration in their relative positions, although we have approached them many million miles.

The Pole Star, which is probably well known to most of our readers, is more than thirty million miles nearer to us in December than it is in June; and yet it seems no closer to the stars in its immediate neighborhood at the former than at the latter period. Thus, thirty million miles is not much, when compared to the distance of the Pole Star. To select two stars close to each other, and to observe that no changes take place in their relative positions although we may approach them by more than thirty million miles, shows us that our distance from the Sun, great as it is, is still but an atom compared to that which separates us from the Pole Star. It has lately been supposed that some stars have been found to alter their relative positions slightly during six months, but the change is so trifling as to indicate that they are at a comparatively infinite distance.

If our material existence had been cast upon the planet Neptune instead of on our own orb, we should then have had a much better chance of measuring the distance of the fixed stars, and, in fact, of the various principal planets in the system. For Neptune is, at one period of his year, five thousand seven hundred million miles nearer to some stars than he is at the opposite period. But as he occupies more than sixty thousand terrestrial days to move round the Sun, each astronomer would have but one chance during his life-

time of observing the same stars from the nearest and furthest points—that is, supposing that the Neptunites live only as long as we do.

What, then, do we know of Space? As a whole, little or nothing! We can measure portions of it—we know which of the worlds are near and which are far from us. The stars, we can prove, are at an enormous distance; yet, beyond all those that we see, there are probably others equally as far from them; and, again, more yet further. But must we again and again go on, and still find suns and systems, universe succeeding universe, and still more and more? If so, what is beyond all this? Does empty space then extend, in which nothing organic exists and nothing has yet appeared? If even this should be, what is again beyond that, and where is its boundary? Tied as we are at present to material bodies, fettered as we are, even in ideas, by this coherence of the perishable with the immortal, and accustomed to think of, examine, and compare only those things which are finite or measurable by us in our now condition, we utterly fail when we attempt to realize the idea of infinite space.

That faculty of our mysterious triune being which we term thought does in a measure annihilate portions of space. We can roam in thought, and in an instant, amongst the huge, deep, caldron-like craters on the moon, or we can rapidly transport ourselves to the surface of Jupiter, and picture to our minds his midnight sky, brilliant with the light of four moons; a voice or a note of music will suddenly recall us from these distant orbs, and perhaps transport us mentally to some quiet sea-side nook where we listened to a voice of music whose tones have thus been recalled to us. It seems, however, necessary to have some link even to enable our thoughts to range through space, for without it we fail to project them.

What link have we to guide us when we endeavor to grasp the idea of infinite space? At present, it appears that we have none; and hence we fail to comprehend it. In a future state, however, our condition may probably be so altered that finite distance is not now more clear than will then be the infinitude thereof. Between time and space there appears a great analogy—a sort of twin-brotherhood. Portions of each may be measured, divided, and treated as common

every-day matters: the whole of each is immeasurable and incomprehensible, like the Creator of each. And thus we again find a third analogy. For all organic and inorganic matters are but portions of the Infinite, who, to us, is incomprehensible.

There is a question which is not unfrequently asked by those who hear or read of the time and labor which are devoted to the elucidation of such subjects as those upon which we have ventured to treat. This is: Of what use is it to know all this? What benefit can it be to any person to know that the sun is so many million miles distant? Why might it not be only half as far? and if we knew it not, what could it matter? Is it not mere waste of time and money to still go on gaining more and more information about a host of stars? *Cui bono?* is the cry.

May we not answer, that it is one of the results of the natural healthy condition of man's mind to thirst after knowledge for his own sake, if for nothing else; and when the mind is not so impelled, then it is not in a sound state. "I have enough, and want no more," is the cry of the mental invalid, who dreams not that his cup is full from merely being so small. But there are other answers. When experimentalists first applied a loadstone to pieces of iron and found its effects on them, did they dream that their continued researches would reveal the compass which was to guide the mariner on the pathless ocean? When the earliest astronomers formed their catalogues of stars, and registered the exact position of the moon and sun at various periods, they scarcely fancied that they were placing those foundation-stones which would enable nations then unformed to issue a guide to mariners three years in advance. The child who learns his letters and his pot-hooks scarcely realizes the use that this labor may eventually become to him. And thus, in science, the laborers thousands of years ago were the representatives of science in its boyhood. We, deriving benefit from the work of those early observers, (just as the youth benefits from the studies he applied himself to when a boy,) may be called the representatives of science in its youth. Those who follow will take care that this same youth is nourished and fed so that he may become a man, and eventually be matured in all wisdom. He is long-lived and of

slow growth, is this Science—many thousand years he has already existed, and yet he is but a stripling; still he progresses rapidly, and gains strength and vigor as long as he has freedom to use his limbs—which are the thoughts of his votaries.

Shall we, in our day, say he has grown enough?—that we have nothing in trust for those who are to follow us?—that we need not inquire more, or labor more, except in those fields which will yield us that which the man of to-day calls “something useful”? Nay, let us rather inquire from the love alone of knowledge; let us collect facts, consider problems, and weigh probabilities, so as to lighten the la-

bor of our followers: and if we do nothing else, we shall in this particular science learn that time is but a term, and that to solve some of our problems requires ages: and thus, whilst dealing with vast epochs, we can not fail to realize the fact that to-day we are here, but that after a few to-morrows our lot will be cast amidst other spheres; and hence we should become, not mere creatures of to-day, but beings whose labors and thoughts are also for the morrow. We should thus endeavor to make ourselves an integral part of that humanity which is placed here to work out a destiny that in the future must be great and high!

From the Leisure Hour.

T H E R E G A L I A O F E N G L A N D .

WITHIN the gray and venerable walls of the Tower of London, where so many matters of historical note are to be found, there are few which have more interest than those objects which have figured on so many important occasions, and been in some measure connected with the careers of English kings and queens, and with the changes and onward progress of Great Britain.

Besides the Royal Regalia, respecting which we propose to give some particulars, there are preserved in the present jewel office, vessels of various kinds, of massive gold, but which are beyond any standard price, in consequence of the rarity and exquisite beauty of their workmanship—the Koh-i-noor diamond, and other bright jewels belonging to the crown. Although the building in which the Regalia are now kept has in modern times been in very bad taste, deprived of its ancient appearance, there are near it the famous Norman Keep—the Beauchamp Tower, in which there are so many stone records of prisoners suffering—the place of execution—the little church close by, in which two headless queens and

many eminent persons lie buried—the Traitor's Gate—and other objects of stirring interest. Each step here illustrates some page of our history, and gives rise to ideas which form contrasts with our present better condition, and the unsettled state of former days.

Before the reign of King Henry III. the jewels and other ensigns of royalty, were at times placed for their safe custody in some of the religious houses, but mostly in the Temple, in London. When the King went abroad, his crown and other objects of majesty usually accompanied him; and on the return of Henry III. from France, in 1230, he commanded the Bishop of Carlisle to replace the jewels in the Tower, “as they had been before”—(this seems to be the first mention of their having been kept there.)

When the Court was held at various towns, the jewels, etc., were, on important festivals, carried to those places. The ancient accounts show that the crown jewels were not always in such safe keeping as they are in Queen Victoria's reign. During the troubles which embittered the latter part of the time of Henry III.,

he conveyed his plate and jewels abroad, and confided them to the care of Margaret, Queen of France; they were laid up in the Temple, at Paris, and afterwards pledged to certain merchants of that nation, in order to raise money for the maintenance of the King's estate, in the necessities to which he was reduced by the rebellion of his barons. In 1272 they were redeemed, and brought back again to England.

Edward III.'s expensive wars obliged him to pawn even his crown and jewels to the merchants of Flanders: they, on this occasion, were recovered; for we find that after the accession of his grandson, Richard II., certain crown jewels were placed in the hands of the Bishop of London and the Earl of Arundel, as security for the sum of ten thousand pounds, which that monarch had borrowed of John Philpot and other merchants of London. Even Henry V., a king of famous memory, was obliged, for the purpose of enabling him to carry on his wars, to pawn the pusan, a rich collar, to the mayor and commonalty of London, as security for the sum of ten thousand marks; and on the following year, having obtained large sums from the nobility and others, he empowered Thomas Chitterne, keeper of his jewels, to deliver them to those persons, as pledges for the payment of their respective loans. In the middle ages, a standard circulating medium was limited; it is therefore not so wonderful that the Regalia were often used, by offering them as security for means of revenue.

Henry VI. on several occasions was reduced to the necessity of pawning his jewels to raise money; and the accounts of some of these transactions serve to give us some faint idea of several objects which are not now to be found in the Tower. In the seventeenth year of this King's reign, the following articles were delivered, by the advice of his Council, to Henry, Bishop of Winchester, as security for a loan of seven thousand marks, namely: "A pusan of gold, called the rich collar," "a sword of gold called the sword of Spaigne," "a tablet of gold in the manner of a boke," "a tablet of St. George," "a pusan of gold, called Iklynnton Collar," "17 saylers of gold, whereof that oon is a man, and the other a woman holdyng the saler in her handes," "ij pottes of gold." There were also a chalice, a tablet of gold of the Salutation of the Virgin, an image of St.

George, a standing-dish of gold, and several other articles, the whole of which was enriched with jewels, chasing, etc.

A few years afterwards other crown jewels were deposited with Humphrey, Earl of Buckingham, as security for part of a sum of money due to him for his own wages, and for the payment of men under his command engaged at the siege of Calais. In this agreement it was specified, that in case the money was not repaid at the end of twelve months to the Earl of Buckingham, he was at liberty to sell the jewels. Many other instances might be given of the risk or loss to which the Regalia have been exposed, even in comparatively recent times.

In Bayley's account of the Tower there is a very long list of the crown jewels, etc., in the jewel house, in the reign of James I.; our space will not, however, allow us to go into particulars, but we proceed to give the list of what may now be more especially considered the English Regalia. At the present time, in the Tower, there are five crowns—one called the crown of St. Edward; the crown of State, made for her present Majesty; the Queen's circlet of gold; the Queen's crown, used at the coronations when there is a Queen consort; and another crown called the Queen's rich crown. Beside these there are the Orb, the Ampulla, and eagle of gold, the Curtana, or pointless sword of mercy, the State sword, and the two swords spiritual and temporal, and St. David's staff. This last is as old as the Anglo-Saxon times, and is supposed to have far greater antiquity. It is four feet seven inches in length, is chiefly of beaten gold, with a pike, or foot of steel, four inches and a quarter long, and a mound and cross at the top. There are, too, the King's scepter, with the cross; the King's scepter, with the dove with wings expanded, an emblem of mercy; the Queen's ivory rod, and the Queen's scepter, with the cross. There is another elegant scepter, which was found, in 1814, behind a wainscoting in the Tower. There are also the armilla, or bracelets, the royal spurs, the salt-cellar of state, which is a model in gold of the White Tower, and numerous vessels for common service, coronation banquets, etc.

The original crown of St. Edward, with which a long line of English kings have been crowned, seems to have in some way disappeared in the troubled time of Charles

I.'s reign, and the crown, now called St. Edward's crown, was made for the coronation of Charles II. The crown called the State crown is different from that called St. Edward's crown. The State crown was worn at the coronation banquets, at the opening of Parliament, and other important state occasions. Various state crowns have been made, from time to time, for several kings and queens of England. On the accession of her present Majesty, a new state crown was ordered to be made; and for this purpose several old crowns were broken up, and other rare jewels brought into use. Respecting this important part of the Regalia, Professor Tennant, of King's College, says that the Imperial state crown of her present Majesty, Queen Victoria, was made by Messrs. Rundell and Bridge, in the year 1838, with jewels taken from old crowns. It consists of diamonds, pearls, rubies, sapphires, and emeralds, set in silver and gold. It has a crimson velvet cap with ermine border, and is lined with white silk. Its gross weight is 39 oz. 5 dwts. troy. The lower part of the band, above the ermine border, consists of a row of 129 pearls, and the upper part of the band of a row of 112 pearls, between which, in front of the crown, is a large sapphire, (partly drilled,) purchased for the crown of his Majesty George IV. At the back is a sapphire of smaller size, and 6 other sapphires, (3 on each side,) between which are 8 emeralds. Above and below the 7 sapphires are 14 diamonds. Between the emeralds and sapphires are 16 trefoil ornaments, containing 160 diamonds. Above the band are 8 sapphires, surmounted by 8 diamonds, between which are 8 festoons, consisting of 148 diamonds. In the front of the crown, and in the center of a diamond Maltese cross, is the famous ruby said to have been given to Edward, Prince of Wales, son of Edward III., called the Black Prince, by Don Pedro, King of Castile, after the battle of Najera, near Vittoria, A.D. 1367. This ruby was worn in the helmet of Henry V. at the battle of Agincourt, A.D. 1415. It is pierced quite through, in the Eastern custom, the upper part of the piercing being filled up by a small ruby. Around this ruby, to form a cross, are 75 brilliant diamonds. Three other Maltese crosses, forming the two sides and back of the crown, have emerald centers, and contain respectively 132, 124, and 130 brilliant diamonds. Between four Maltese crosses are 4 ornaments in the

form of the French *fleur-de-lis*, with 4 rubies in the centers, and surrounded by rose diamonds, containing respectively 85, 86, and 87 rose diamonds. From the Maltese crosses issue four imperial arches composed of oak leaves and acorns, the leaves containing 728 rose, table, and brilliant diamonds—32 pearls forming the acorns, set in cups containing 54 rose diamonds and one table diamond. The total number of diamonds in the arches and acorns is 108 brilliant, 116 table, and 559 rose diamonds. From the upper part of the arches are suspended four large pendant pear-shaped pearls, with rose diamond cups, containing 12 rose diamonds, and stems containing 24 very small rose diamonds. Above the arch stands the mound, containing in the lower hemisphere 304 brilliants, and in the upper 244 brilliants; the cross on the summit has a rose-cut sapphire in the center, surrounded by 4 large brilliants, and 108 smaller brilliants.

The following is a summary of the jewels comprised in the crown of state: 1 large ruby irregularly polished, 1 large broad-spread sapphire, 16 sapphires, 11 emeralds, 4 rubies, 1363 brilliant diamonds, 1273 rose diamonds, 147 table diamonds, 4 drop-shaped pearls, and 273 pearls.

The office of keeper of the royal jewels had been considered one of considerable importance, and was holden by persons of distinction. In the reign of Henry VIII., Thomas Cromwell, who was afterward Earl of Essex, was appointed to this post. The keeper was styled the Master and Treasurer of the Jewel-house; and besides the care of the Regalia in the Tower, he had the purchasing and custody of all royal plate, the appointment of the King and Queen's goldsmiths and jewelers, the furnishing of plate to ambassadors and great officers of state, and the remanding of it when the ambassadors returned, or the officers died, or were removed. He had lodgings in all the King's houses, and conveyance as well for the plate as for his own household, or removals of the court. The salary attached to his office was only £50 per annum, but his perquisites were very considerable; and in the reign of King Charles II., after they had undergone considerable reduction, amounted to £1300 yearly. He was allowed a table of fourteen dishes, with beer, wine, etc., or 38s. daily for board wages; £300 came to him every year out of the New-Year's gift money; and about £300 more he obtained by car-

rying presents to ambassadors. He had an allowance of twenty-eight ounces of plate yearly, and the small presents sent to the King, anciently valued at £30 or £40, as also the purses wherein the lords presented their gold, which were usually worth £30 or £40 each. In public processions he had precedence next to privy councilors. At coronations he wore a scarlet robe, and dined at the barons' tables in Westminster Hall; and at opening and closing sessions of Parliament, and on passing of bills, when the King appeared in his robes, he attended to put on and take off the crown from his Majesty's head.

Sir Henry Mildmay was Master and Treasurer of the Jewel-house during the interregnum, but on the restoration of Charles II., and the attainder of Sir Henry, the office was given to Sir Gilbert Talbot, when many of the perquisites were either abolished or came into other hands; and since that period, all the duties and advantages of the place have either been done away with, or have merged in the of-

fice of the Lord Chamberlain, except the custody of the Regalia in the Tower, the appointment of which is also in his lordship's gift.

The Master had formerly lodgings in the Tower, but did not reside there except on important occasions, that part of his charge being confided to a trusty servant. And it was soon after the appointment of Sir Gilbert Talbot that the Regalia in the Tower first became objects of public inspection, which King Charles allowed in consequence of the above-mentioned reductions in the emoluments of the Master's office. The profits which arose from showing the jewels to strangers, Sir Gilbert assigned in lieu of a salary to the person whom he had appointed to the care of them. This was an old confidential servant of his father's, one Talbot Edwards, whose name is still so well known as keeper when the notorious attempt was made by Blood to steal the crown in the year 1673.

SAMUEL FINLEY BREESE MORSE.

IN the finely-engraved portrait which embellishes the present number of *THE ECLECTIC*, the reader will recognize the expressive lineaments of Prof. S. F. B. Morse, whose genius and talents have opened a great passage-way for the transmission of intelligence at lightning speed over all this land, and widely over foreign countries. This great act of his inventive genius will immortalize his name, and place him high on the roll of fame as a benefactor of his race. We are quite sure our readers will be gratified to possess so accurate a portrait, and so well executed, by his personal friend, the artist, Mr. John Sartain. We subjoin the following biographical sketch, the most of which we find in *The Men of the Time*:

PROFESSOR MORSE is the eldest son of the Rev. Jedediah Morse, the first American geographer, and was born in Charlestown, Massachusetts, April

27th, 1791. He was educated at Yale College, where he graduated in 1810. He had from a very early age determined to be a painter; and his father, finding his passion for art incorrigible, consented to indulge him in his wishes; and he accordingly sailed for England, under the charge of Mr. Allston, and arrived in London in August, 1811. Here he formed an intimacy with C. R. Leslie, and the first portraits of either of these artists painted in London were likenesses of each other. Mr. Morse made rapid progress in his profession. In 1813, he exhibited at the Royal Academy his picture of "The Dying Hercules," of colossal size, which received high praise from the connoisseurs, and the plaster model which he made of the same subject, to assist him in his picture, received the prize in sculpture the same year. Encouraged by this success, the artist determined to contend for the

premium in historical composition offered by the Academy the following year. The picture, the subject of which was, "The Judgment of Jupiter, in the case of Apollo, Marpessa, and Idas," was completed in time, but Mr. Morse was obliged to leave England before the premiums were to be adjudged, and was consequently excluded from the privilege of competing for the prize. Mr. West afterward assured him that he would undoubtedly have won it. On his return to America, he settled in Boston. About 1822, he took up his residence in New-York, where he found his works and talents more justly appreciated, and his skill as an artist put in requisition. Under a commission from the corporation, he painted a full-length portrait of Lafayette, then on a visit to the United States. It was shortly after this, that Mr. Morse formed that association of artists which resulted in the establishment of the National Academy of Design, of which he was elected president; and it is worthy of note, that the first course of lectures on the subject of art read in America, was delivered by him before the New-York Athenæum, and afterward repeated to the students of the Academy. In 1829, he paid a second visit to Europe, and remained abroad three years. On his return from Europe, in the packet-ship *Sulley*, in 1832, a gentleman, in describing the experiments that had just been made in Paris with the electro-magnet, the question arose as to the time occupied by the electric fluid in passing through the wire, stated to be about one hundred feet in length. On the reply that it was instantaneous, (recollecting the experiments of Franklin,) he suggested that it might be carried to any distance, and that the electric spark could be made a means of conveying and recording intelligence. This suggestion, which drew some casual observation of assent from the party, took deep hold of Professor Morse, who undertook to develop the idea which he had originated; and, before the end of the voyage, he had drawn out and written the general plan of the invention with which his name will be inseparably connected. His main object was to effect a communication by means of the electro-magnet that would leave a permanent record by signs answering for an alphabet, and which, though carried to any distance, would communicate with any place that might be on the line. His first idea was

to pass a strip of paper, saturated with some chemical preparation that would be decomposed when brought in connection with the wire, along which the electric current was passing, and thus form an alphabet by marks, varying in width and number, that could be made upon the paper at the will of the operator, and by this means avoid separating the wire at the different points of communication. On his return to New-York, he resumed his profession, still devoting all his spare time, under great disadvantages, to the perfection of his invention. Finding his original plan impracticable, he availed himself of the action of the electro-magnet upon the lever as a mode of using pens and ink, as in the ruling machine. Of these he had five, with the idea of securing the required characters from one of the pens. These he abandoned for pencils, and after a trial of various means for obtaining the end desired, and finding by experiment he could obtain any requisite force from the lever, he adopted the stylus or steel point for indenting the paper, and it is this he has since used. After great difficulty and much discouragement, Professor Morse in 1835 demonstrated the practicability of his invention, by completing and putting in operation in the New-York University, a model of his "Recording Electric Telegraph"—the whole apparatus, with the exception of a wooden clock which formed part of it, having been made by himself. In 1837, he abandoned his profession, with great regret, hoping to make his invention a means of resuming it, under easier and more agreeable circumstances. In the same year, he filed his caveat at the patent-office in Washington; and it is somewhat singular that, during this year, (1837.) Wheatstone, in England, and Steinheil, in Bavaria, both invented a magnetic telegraph, differing from the American and from each other. Wheatstone's is very inferior, not being a recording telegraph, but requiring to be watched by one of the attendants—the alphabet being made by the deflection of the needle. Steinheil's, on the contrary, is a recording telegraph, but from its complicated and delicate machinery, has been found impracticable for extended lines. At a convention held in 1851 by Austria, Prussia, Saxony, Wirtemberg, and Bavaria, for the purpose of adopting a uniform system of telegraphing for all Germany, by the advice of Steinheil, Professor Morse's was the one selected. From

the Sultan of Turkey he received the first foreign acknowledgment of his invention, in the bestowal of a *nishan*, or order—the “order of glory:” a diploma to that effect was transmitted to him with the magnificent decoration of that order in diamonds. The second acknowledgment was from the King of Prussia, being a splendid gold snuff-box, containing in its lid the Prussian gold medal of scientific merit. The latest acknowledgment is from the King of Württemberg, who transmitted to him the “Württemberg Gold Medal of Arts and Sciences.” In 1838, he went to England, for the purpose of securing a patent there, but was refused through the influence of Wheatstone and his friends, under the pretense that his invention had already been published there. All that could be adduced in proof of this was the publication in an English scientific periodical of an extract copied from the *New-York Journal of Commerce*, stating the results of his invention, without giving the means by which they were produced. In the following spring, he returned to this country, and in 1840 perfected his patent at Washington, and set about getting his telegraph into practical operation. In 1844, the first electric telegraph was completed in the United States, between Baltimore and Washington; and the first

intelligence of a public character which passed over the wires was the announcement of the nomination of James K. Polk, as the Democratic candidate for the presidency, by the Baltimore convention. Since then, he has seen its wires extended all over the country, to the length of more than fifteen thousand miles—an extent unknown elsewhere in the civilized world. His success has led to the invasion of his patent rights by others, whom he has finally succeeded in defeating, after an expensive and protracted litigation. Professor Morse still clings to the idea of resuming his early profession of painting, to which he is strongly attached, and in the progress of which he has always taken a deep interest. As an artist, he has always enjoyed a very high reputation. His tastes inclined to historical painting, but circumstances did not often permit him to indulge it; he was mainly engaged in the painting of portraits. In 1820, he painted a large picture of the interior of the House of Representatives, with portraits of the members, which passed into the possession of an English gentleman; and in 1832, while in Paris, he made a beautiful picture of the Louvre gallery, copying in miniature the most valuable paintings. He resides at Locust Grove, two miles south of Poughkeepsie, on the banks of the Hudson River.

From Colburn's New Monthly.

S I R M A R C I S A M B A R D B R U N E L . *

THE early years of Marc Isambard Brunel were in the most fearful period of the first French Revolution. His parents, who were well descended and independent—though more honored than wealthy—were Royalists; and he was himself also warmly attached to the same principles. This, at the time we speak of, would have been sufficiently dangerous even if he had been silent as to the opin-

ions he held; but he was of too ardent a temperament for concealment.

“On the very day when the Convention pronounced sentence against the unfortunate Louis XVI., Brunel was found defending his own loyal opinions in the Colonnade of the Café de l’Echelle, little conscious of the risk to which he subjected himself;” and was answering the observations of a ferocious ultra-republican with taunts that were likely to aggravate his danger, when, “fortunately for our young loyalist, M. Taillefer, a member of

* *Memoir of the Life of Sir Marc Isambard Brunel.* By RICHARD BEAMISH, F.R.S. London: Longman & Co. 1861.

the Assembly, by committing an act of still greater indiscretion, turned the attention of those present upon himself, and in the confusion which ensued Brunel was enabled to effect his escape. That night he slept at the Petit Gaillard-bois, next door, and the following morning, at an early hour, quitted Paris."

He had previously been at Rouen, when at the seminary of St. Nicaise, and, returning there, he availed himself of the protection of his relation, M. Carpentier, whose views were known to be moderate, and where "he was enabled to remain for a time undisturbed." It was also "under his hospitable roof that an event occurred which will be found to have exercised a marked influence upon Brunel's future career. In that house, for the first time, he met a young English lady of the name of Kingdom, gifted with no ordinary personal attractions." She was the orphan daughter of an army and navy agent at Plymouth. She had just attained her sixteenth year; and her mother had been induced to allow her to accompany some West-India friends, M. and Madame de Longuemar, to Rouen, that she might acquire a practical knowledge of the French language. "It might be matter of some surprise," says Mr. Beamish, "that Miss Kingdom should have been permitted by her friends to enter France at all at a period when every thing was tending so rapidly to a political crisis,* if we were not aware how little was generally known in England as to the condition of political parties in France. But already royalty was in captivity, and the most fearful cruelties were being committed in the name of liberty."

"At Rouen two young ladies, known to M. and Madame Longuemar, were dragged into the street by the insensate mob, and, with shouts of 'à la lanterne,' were actually murdered because they had been heard to play a loyalist air upon their piano-forte. The alarm thus created in Rouen hastened the departure of M. and Madame de Longuemar for the West-Indies. Miss Kingdom would gladly have accompanied them had not a severe illness rendered her unable to encounter the inconvenience of a sea-voyage." She was left under the care of M. Carpentier, and here Brunel became acquainted with her. For him "beauty of form possessed an

irresistible attraction," and mutual tastes and sympathies did the rest. But there was to be a long separation. He had again made himself offensive to the revolutionists. Some disturbances had been excited by the Republican party at Rouen, which the Royalists had been called out to suppress, and Brunel amongst the number. The dangers that equally surrounded them attached him more devotedly than ever to the object of his affections; a reciprocal avowal of their attachment followed; but his situation daily became more critical, and a longer delay in Rouen might have cost him his life. With much difficulty he obtained a passport for America. Not a moment was to be lost; and, "on the seventh July, 1793, he bade adieu to his native France, not, as we may believe, without feelings of deep and heartfelt sorrow." He embarked on board an American vessel at Havre. Scarcely, however, had he begun to congratulate himself upon his escape, embittered though it must have been by a separation the most painful we can imagine, when he discovered that the passport, which could alone protect him from the national vessels of war that were cruising in the Channel, had been forgotten and left behind. Brunel's was not a mind to waste itself in vain regrets. He borrowed the passport of a fellow-passenger as a model, and his skill as a draughtsman and in penmanship enabled him soon to produce a copy "so admirably executed in every minute detail, even to the seal," that when the American was boarded by a French frigate, and the passengers were rigidly examined, not the slightest suspicion of the well-simulated document was excited, and on the sixth of September, 1793, he landed in safety at New-York.

With this, the romance of his life was near an end. Many years elapsed before he again saw the lady who was destined to be his wife. When England had entered into the coalition against France, all communication between the two countries was cut off, "and the English then found upon French soil were, without regard to sex or age, hurried away to prison. Fortunately for Miss Kingdom, the prisons were already full to overflowing. She was, therefore, with some others, conveyed to a convent, and placed under the surveillance of the nuns." Their wretched fare and miserable lodging were evils that were made endurable by the kind sympa-

* 1792.

thy of the poor women who had been made their jailers; but it was a state of fearful suspense as her companions passed one by one from the convent to the scaffold, till on a morning of July, 1794, "the doors of their prison-house were thrown open, and they were declared free to depart whither they would." The Reign of Terror was at an end. The Carpentiers again received their young friend with open arms, "and, as the best service they could now render, they lost no time in obtaining for her a passport to her own country."

When Brunel landed in America he had little to depend upon for subsistence beyond the skill in mechanics possessed by an unknown man. The direction of his talents to such objects had been a source of vexation and disappointment to his family, who had intended him for the Church. They afterward consented to his entering the royal navy. Through the interest of the Maréchal de Castries, he was appointed, before the usual age, a *volontaire d'honneur*, a privilege, we are told by his biographer, that "had only once before been granted, and that to M. de Bourgainville, the celebrated circumnavigator;" and it is regretted that of his six years' services in the navy we have no record.

But, from his earliest years, his studies and amusements were connected with machinery, and with the instruments used in its construction. As a mere boy his delight was in the work-shop of the carpenter. Wheels and cylinders were his playthings; the tools employed to form them were the only objects he coveted. His father had endeavored in vain to deter him from such pursuits, and had "sought to compel obedience to his wishes by the infliction of various punishments, solitary confinement being the most often employed."

"Of one room, selected for that purpose," says Mr. Beamish, "the little recusant entertained something like horror. On the walls of that room hung a series of family portraits. Amongst them was one of a grim old gentleman, the eyes of which appeared to be always turned toward him, with a frown so stern, menacing, and forbidding, that fear and vexation took possession of his mind. No matter in what part of the room he took shelter, still those angry eyes were upon him; nor could he resist their painful attraction,

for look at them he must. His nervous temperament becoming unable to bear the sort of persecution any longer, he one day, when nearly distracted, collected all his strength to drag a table from one end of the room, and to place it immediately beneath the picture. Upon the table he contrived to lift a chair, and on this chair he climbed. Regardless of consequences, he at once revenged himself for the misery he had endured, by fairly cutting out the eyes from the canvas with the aid of his friendly pocket-knife." The boy proved indomitable; and the world gained one of the most gifted of its civil engineers.

His first chance of employment in America arose from his connection with two of his fellow-passengers, M. Pharoux and M. Desjardins, who were engaged in the survey, for a French company, of a large tract of land near Lake Ontario, and who permitted him to join their expedition. Accompanied by four Indians, they entered "upon the arduous duty, not only of exploring, but of actually mapping a region hitherto scarcely known." The glories of the physical world, in forest wastes

"Which human footstep never yet had pressed,"

made a deep impression upon the mind of Brunel, and "were ever remembered by him with renewed pleasure, mingled with a certain awe when he called to mind the perils and the gloom by which his path had been so often compassed."

Their task was accomplished, and while returning to New-York they became acquainted with a Mr. Thurman, an American loyalist, by whom M. Pharoux and Brunel were engaged in carrying out some extensive projects for the construction of canals and the improvement of the navigation of rivers. He seems to have been successful in all that he attempted. Mr. Beamish says that in "less than twelve months he had achieved a name and secured an independence." This leaves but a vague impression, especially as we are afterward told that "his genius received but inadequate reward." It is certain, however, that he had now established his reputation as a civil engineer, and was extensively employed. As an architect he was equally successful. When plans for the Senate House, at Washington, were opened to competition, Brunel's was so immeasurably the best that "the judges were



relieved from all difficulty of selection ;” but motives of economy deprived the nation of a structure worthy of its greatness. The Park Theater at New-York, which was burnt down in 1821, was also from his designs, with some additions by his friend and enlightened patron Pharoux ; whose death, in an attempt to cross the great falls of the Black River, he had soon afterward to lament.

His talents had now raised Brunel so high in the estimation of the citizens of New-York, that he was appointed their Chief Engineer, and it was in this capacity that he had to prepare designs for a cannon foundry, to assist in the fortifications which defended the approaches to the city, and to carry on a variety of labors, of which, unfortunately, few particulars remain.

An incident during this time occurred that gave to England the benefit of one of his greatest inventions. He was one day dining with General Hamilton, the distinguished aide-de-camp and secretary of Washington. Amongst the guests was a M. Delabigarre, who had lately arrived from England ; and the conversation turned upon the recent achievements of the British navy, our naval prowess, the principles of naval architecture, and the supply of the materials of ships-of-war. He seemed to have given these subjects his special attention, and enlarged more particularly on the manufacture of *ships' blocks*, describing the machinery in use at Southampton by Messrs. Taylor, and the great and increasing expense of their mode of making them. Brunel took part in the discussion. What he had heard made at once an impression upon his mind, and was long afterward the object of deep and intense thought ; and it is to the conversation at General Hamilton's table that we have to trace the invention of the machinery at Portsmouth, which has for years been one of the wonders of England, and has been visited by travelers, both scientific and unscientific, from every part of the world.

Though the institutions of France were assuming a more settled character, Brunel saw little inducement to return there, and had become a citizen of New-York in 1796 ; but he had long seen that his field of fame lay in another land. While yet a boy, and wandering on the quay at Rouen, his inquiries about any piece of curious machinery or mechanic skill that was be-

ing landed, were always answered that *it came from England*, and his constant exclamation was : “ *Ah ! quand je serai grand, j'irai voir ce pays la !* ”

His intention was fulfilled. He left America and landed at Falmouth in 1799, and was soon afterward married to Miss Kingdom. For his sake she had rejected many an eligible offer, and “ we may well believe that her confidence and her affection had nothing to regret,” when, after forty-six years of wedded life, he could write to her, in his seventy-sixth year, with all the freshness of his first regard : “ To you, my dearest Sophia, I am indebted for all my success.”

We have already said that our notice of his life would be devoted to other subjects than his career as a man of science. To this we shall very briefly allude. When once in England, nothing seemed so great as to be beyond his power, and nothing so unimportant as to be beneath his notice. Block-machinery, sawing-mills, bridges, the printing-press, and the Thames Tunnel were not sufficient to occupy his attention to the exclusion of a number of smaller inventions and improvements, down to hat-boxes, pill-boxes, and knitting-machines.

To the history of the Thames Tunnel Mr. Beamish devotes a very large and interesting portion of his work. It is too extensive to be given, even in an abridgment, and will amply repay a careful reading. It will also be the authentic record for future reference of a great work, to which only one element of success was wanting.

Next in utility and importance to the machinery at Portsmouth, Mr. Beamish seems to consider the works at Chatham. They were a signal instance of what a mind trained and constituted for its task could accomplish. Under the old system the landing, removal, and laborious dragging to and fro, for survey, stacking, and sawing of eight thousand loads of timber, required eighteen thousand goings and comings of teams of horses, and the expense, confusion, and damage which attended these clumsy movements would now seem incredible. With the aid of a great inventor all this was effected by means of an elaborate complication of machinery, of which some of the most important operations could be directed by a single man.

It is not clear, from Mr. Beamish's narrative, to what extent Mr. Brunel was rewarded by Government. For the ma-

chinery at Portsmouth he seems to have received something less than eighteen thousand pounds; and he had a grant to relieve him from his difficulties, in 1821, of five thousand pounds. This, however, could not have been his whole remuneration. There were further receipts both from Woolwich and Chatham.

In addition to his other works, he had sawing-mills and various processes carried on at Battersea for his private gain. But they were unfortunate in their results. We were told by a well-known artist, in his studio at Rome, "*Ah! signore, fra l'oro e me non c'è affinità: viene e va.*"* and it may equally have been said of Brunel. As a commercial speculation the works at Battersea were badly managed. He also lost considerably by his machinery for supplying the army with shoes, which was scarcely brought into full operation when the war unexpectedly terminated. To add to these calamities, in August, 1814, the mills at Battersea were burnt, and in two hours was "nearly destroyed an establishment which had been valued at twenty-four thousand pounds, and which had cost many hours of anxiety and self-denial." A series of embarrassments followed. By the untiring energy of Brunel the machinery was replaced; but the financial affairs of a concern capable of yielding a gross return of eight thousand pounds or ten thousand pounds per annum, were a complication of inextricable confusion; and in 1821 he was a prisoner in the King's Bench.

His sufferings under this misfortune are well brought before us. In appealing to his powerful friends, "My affectionate wife and myself," he writes, "are sinking under it. We have neither rest by day, nor night." "Thus" (adds his biographer) "many a sad to-morrow came and went; and he that had enriched hundreds by the exercise of the most honored of the human faculties, was left for months to mourn the hardness of his fate." He felt too that, in the eyes of the world, his misfortune might seem a disgrace. At last, the grant that we have already mentioned was obtained, through the assistance of the Duke of Wellington, and he was enabled to recover his liberty. It was made expressly for services "rendered to the country, more especially in reference to the block machinery," an invention of lasting

importance, the whole merit of which, as Mr. Beamish satisfactorily shows, belonged exclusively to Brunel.

He received his knighthood in 1841, toward the close of his labors at the Thames Tunnel, and the anxieties that overwhelmed him in connection with the difficulties of such a work brought on his first serious illness. It was an attack of paralysis. By submission to proper medical treatment he soon recovered from its immediate effects, and it was not till 1849, in his eighty-first year, that he died. His devoted wife survived him. Of his children, a daughter is the wife of Sir Benjamin Hawes, and her recollections, and the materials she had collected, have greatly assisted Mr. Beamish in his task. The only other child need scarcely be named. He will be known to future generations both for his successes and his failures. The launching alone of the Great Eastern was a triumph of mechanical genius, however misapplied; and as long as she occasionally tumbles about the Atlantic like a harpooned whale, or threatens destruction to every thing in the port she enters, the name of her projector will be freshly though painfully remembered.

In one of the notices of Mr. Beamish's work it is remarked that the reckless expenditure, both by father and son, of money that was invested not for wild experiments, but for profitable returns, amounted to little less than dishonesty. We do not join in this opinion. There was no selfishness or intention to do wrong; nor even greediness of gain. It could not be said of either of them that he was "*alieni appetens*," and if they were profuse, they were not more so of the money of others than of their own. It seemed to be their idiosyncratic feeling that it was only created to be spent. Besides, nothing great in invention or discovery can be achieved except by the possessor of so sanguine a temperament as to the prudent seems insanity, and sometimes worse than insanity. Those who blame the Brunels for their losses should rather blame their own folly for committing their little all to the hazard of such a die. The heartaches that followed were as much to be attributed to wild cupidity of gain as to a wasteful expenditure of the money that had been so unwisely risked. But let the blame be shared by whom it may, it applies to transactions that can scarcely be brought within the category of dishonesty.

* *Between myself and gold there is no affinity: it comes and goes.*

In the character of the father there were many points to attract attachment and regard. Of his personal appearance, his biographer does not convey to us a very favorable impression. "Brunel" (he says) "was below the middle stature, his head conspicuously large, though without destroying the symmetry of his person; so striking, indeed, was his forehead, that an Irish friend of mine, after his first introduction, was tempted to exclaim, 'Why, my dear fellow, that man's face is all head!'" But it was such a head as is rarely seen. Judging from the cast of a medal in our own possession, it was as fine as that of Goethe or of Scott. In its developments the mental faculties were shown in a remarkable degree; and the moral sentiments of benevolence, veneration, and hope. His habits were simple and unostentatious, and he had that love of children and of animals which generally indicates a kindly disposition. Of his fondness for children Mr. Beamish gives some amusing instances. To his own he was a loving and devoted father. He was a great favorite in society, "as well from the variety and accuracy of his knowledge as from a naïveté and humor of expression which was much enhanced by his foreign accent; and though not unwilling to enter into new topics of conversation, his natural disposition led him rather to indulge in anecdotes of the past." Both in word and action he had great presence of mind. When unexpectedly reminded by the Prince Regent that he had promised a copying-machine of his own invention, and never sent it, his ready and graceful answer was, "Please, your Royal Highness, I have unfortunately never been able to perfect the machine so as to make it worthy of your Royal Highness's acceptance." As an instance of the same faculty under very different cir-

cumstances, it is mentioned that "while inspecting the Birmingham Railway, a train, to the horror of the bystanders, was observed to approach from either end of the line, with a velocity which, in the early experience of locomotives, Brunel was unable to appreciate. Without attempting to cross the road, he at once buttoned his coat, brought the skirts close round him, and firmly placing himself between the two lines of rail, waited with confidence the issue. The trains swept past leaving him unscathed."

He was indulgent to the attempts of inferior talent; and if amongst his failings was an undue "love of approbation," it must be remembered to what an extent he possessed the qualities for which approbation might be claimed.

His religious impressions were those of a serious and reflective mind. Though educated a Roman Catholic, he had become attached to the Church of England, and had carefully studied the Scriptures for himself. To a mind so disciplined, death would be regarded as the inevitable dispensation of God, and would be met with calmness and resignation. In the words of his biographer: "At peace with himself and all beside, he calmly sank to rest, leaving a name to be cherished so long as mechanical science shall be honored."

It is no exaggeration to say that, out of such men as these, the dark ages made their magicians, and the nations of antiquity their demigods.

Our closing words will be with Mr. Beamish himself, and we would suggest to him that, devoted as he has been for years to the amusements and pursuits of a refined and cultivated mind, he will be expected to give us other works as acceptable as his *Life of Brunel*.

We often fancy we suffer from ingratitude, when, in reality, we are suffering from self-love.

It is only in the world of dreams that we have the rainbow without the storm.

THE object of conversation is to entertain and amuse. To be agreeable, you must learn to be a good listener. A man who monopolizes a conversation is a bore, no matter how great his knowledge.

Do not dwell on the dark side of things, but on life's brighter aspects. "He who goes into his garden to seek for cobwebs and spiders, no doubt will find them, while he who looks for a flower may return into his house with one blooming in his bosom."

"For my part," said Alton Locke, "I seem to have learnt that the only thing to regenerate the world is not more of any system, good or bad, but simply more of the Spirit of God."

Abridged from the London Times of May 2d.

T H E G R E A T E X H I B I T I O N .

THE OPENING CEREMONIAL.

EVERY thing combined on Thursday (May 1st) to make the second Great International Exhibition a perfect success. Rain fell heavily till about eight o'clock, when the clouds cleared away, and thenceforward the weather was as brilliant as possible. Detachments of police began to make their appearance in the streets near the Exhibition about nine o'clock, but long before that hour files of carriages stretched far away to Knightsbridge in one direction, and across the Park in another. For nearly an hour the character of the gathering remained unchanged, though the lines of carriages doubled and lengthened, and the crowd at the doors deepened. . . . The line was kept by patrols furnished by the Second Life Guards, the Fifth Lancers, and the Royal Horse Guards. By their exertions and that of the mounted police, a free circulation was kept up along this route during the day, and the processions from Buckingham Palace and the Mansion House respectively were little, if at all, delayed. But those who took the lower road by Hydepark corner had their patience sorely tried. From an early hour "blocks" appeared to be the rule, and locomotion the exception. Between eleven and twelve o'clock the great mass of distinguished visitors began to reach South-Kensington. In all the varied and gorgeous colorings of French, Austrian, Russian, Bavarian, Saxon, and other European Embassies, in the less dazzling, but still rich and diversified garb of private households, a rapid and bewildering succession of equipages swarmed up, to the western dome chiefly, and deposited their occupants. The Haitian Embassy and the Japanese Ambassadors were the objects of greatest interest to the spectators. At the western door also entered the Civic procession, headed by the Lord Mayor, which came by Cheapside, Newgate street, and Holborn hill. The entrance in Cromwell

road had been reserved especially for the Royal Commissioners, for members of the British Royal family, and for other illustrious personages. It was at this point where, perhaps, the public pressure was strongest. Now the crowd was vanquished, and permitted itself to be restrained within rational limits; now it surged forward, and swallowed up members of the cavalry singly, so that only their swords and helmets were to be seen. One very beautiful horse resented the pressure, not by any vicious or clumsy means, but by a maneuver peculiar to itself. Rearing as nearly as possible straight up, it pushed out its forelegs in the direction of the crowd as easily and gracefully as if drawing on a glove, and having induced them to keep at a respectful distance, dropped down into its former position.

Shortly after half-past twelve o'clock the Duchess of Cambridge, the Grand Duchess of Mecklenburg-Strelitz, and the Princess Mary arrived and were received with a Royal salute. On alighting they were met and conducted to their places by Earl Granville, the Duke of Buckingham, and others of the Exhibition Commissioners. At one o'clock precisely the carriages conveying the Royal Commissioners deputed by her Majesty to open the Exhibition reached the same entrance, having proceeded in procession from Buckingham Palace. They were received with military honors. Lord Palmerston descended from his carriage with difficulty, but no sooner had he alighted than he engaged in earnest conversation with the assembled Exhibition Commissioners. Recent suffering betrayed itself in Lord Derby's face, and he walked rather lame, leaning on a stick. Immediately following the Royal Commissioners were the royal carriages containing the Crown Prince of Prussia and Prince Oscar of Sweden, with their respective suites. The Crown Prince

was very warmly cheered. By half-past twelve the doors were closed against any but privileged persons. Outside the building the crowd, under the influence of fine weather, were patient and good-humored. There was a vast assemblage in the Exhibition road, where the strains of the orchestra and choir were faintly heard. The Hallelujah Chorus was listened to attentively, and the well-known strains of the National Anthem, followed by cheers inside, told that the crowning act in the day's ceremonial was accomplished. The cheers were immediately echoed, and again and again repeated with interest; and the Horse Artillery, stationed on the site of the Exhibition of 1851, fired a royal salute.

The ceremonial within the building was the grandest, best managed, and most imposing public pageant which has been seen in this country for years; and, considering all that had to be done at the very last moment, it is wonderful how complete was every arrangement. . . Gradually the crowd occupied every nook and corner, and the huge orchestra budded forth in colors as the fair members of the choir took their seats, till at last the whole of this great amphitheater was as beautiful as a prize bank of azaleas at a flower-show. The bands of the Grenadier, Coldstream, and Fusilier Guards were stationed at the western dome, but at the eastern end all the real attractions were centered. Here came the invited visitors to the reserved seats, some, though a small minority, in uniform; and here also assembled the ambassadors and foreign visitors of distinction before proceeding to their starting-post from "Procession Court." None were admitted within the area on the dais platform itself except in uniform of some kind, and, as the latitude was very great, the variety in fashion and color was almost infinite. The ten thousand hues of the ladies' spring dresses formed a rich mass of coloring, on which the rays of the sun played with a wonderfully brilliant effect, and the gay robes of gold chains of office displayed by some of the provincial mayors, contributed very materially to the splendors of the scene. The rule as to uniforms was inexorable. The Japanese ambassadors were of course the objects of unmeasured curiosity. Their dresses were plain in color, but rich in material. They wore the two swords which in their land are the highest insignia of aristocracy. Under the western dome also were mayors and

corporate dignities, refulgent in many-colored robes. There were Greeks, Turks, Albanians, Parsees, and Persians, all more or less embroidered and enriched, Hungarians and Highlanders, Swedes and Orientals—great men of almost every clime and creed and costume. Compared with 1851, the mere spectacle was as much more gorgeous as the Exhibition itself is better.

The first scattered elements of the procession began to assemble in the South Court shortly before twelve. Mr. Fairbairn, Sir C. Dilke, the Duke of Buckingham, and Mr. Sandford, were each in their places long before the appointed time, showing no traces of having been up the night before, and though last, not least, among the hardest of the hard workers were Mr. Kelk and Messrs. C. and T. Lucas, probably the only three men in the kingdom who could have executed the huge work with which they were intrusted within the allotted time. To these, also, others, of not more importance, but greater magnificence, came in fast. Mr. Drummond Wolff, in virtue of his office as Commissioner from the Ionian Islands, was for a time the observed of all observers, till Count Waldstein and Count Szechenyi came upon the scene in full Hungarian costumes—the latter all in black, and the former in most picturesque garments of the same fashion, but with a perfect breast-work of turquoises round him. The Duke of Newcastle, the Duke of Buccleuch, Mr. Disraeli, Mr. Lowe, Sir C. Wood, Mr. Gladstone, the Bishop of London, and the Lord Mayor, came within a few minutes of each other. Then there was a pause, during which the personages in the embryo procession had nothing to do but to criticise the tinted marble statues sent by Gibson from Rome, which were right in front of them, and facing the great skeleton of Benson's half-finished clock. At half-past twelve o'clock all reserved seats left till then unoccupied were thrown open to the visitors, and in the midst of the bustle consequent thereon, it was discovered that there was an unpleasant congregation of workmen upon the roof, who were busily engaged in taking out the panes of glass from the sashes and inserting their heads in lieu of them, in order to get a better view into the interior. So "authorities" were dispatched forthwith to disperse as much as possible the unnecessary crowds of lookers-on from such a dangerous point of view; and this last clearance made, all

only awaited the arrival of the Special Royal Commissioners to commence the ceremonial. Lord Granville had been one of the first among the distinguished personages to enter the procession court, when he was most warmly welcomed, and congratulated upon the success so far of the great undertaking, to the completeness of which he has contributed so largely by his own untiring personal influence and exertions. Before his lordship left his house in Bruton street, he received a telegram from the Crown Princess of Prussia, as follows: "My best wishes for the success of to-day's ceremony, and of the whole undertaking."

At a quarter past one, a shrill blast from the trumpeters of the Life Guards, which pealed through the whole building, announced that the procession had begun to move. On each side of the nave, north and south, a wide space had been railed off, which served as a path through the dense crowd, and, turning to the left, the pageant moved toward the western dome, where the opening part of the ceremonial was to take place. The following was the order of the procession: Trumpeters of the Life Guards in state uniforms; . . . Acting Commissioners for Colonies, Dependencies, etc.; Foreign Acting Commissioners; the Lord Provost of Glasgow; the Lord Mayor of York; the Lord Mayor of Dublin; the Lord Provost of Edinburgh; the Lord Mayor of London, and the Sheriffs of London and Middlesex; Presidents of Foreign Commissions; H. M. Commissioners for 1851; H. M. Commissioners for the Exhibition of 1862; H. M. Ministers; H. M. Special Commissioners for the Opening; H. R. H. Prince Oscar of Sweden; H. R. H. the Crown Prince of Prussia.

The Duke of Cambridge, as he passed along, was loudly cheered, and Lord Palmerston and Lord Derby, who on this occasion appeared in close conjunction, were also warmly received. On a raised dais under the western dome had been erected a magnificent canopy, and underneath were ranged chairs of state for the Queen's Commissioners—the Duke of Cambridge taking the center, with the Prince of Prussia on his right and Prince Oscar of Sweden on his left. In the glittering crowd beneath were grouped together in a glowing mass every variety of uniform, and stretching away behind was the rich perspective of the nave, with the vast ex-

panse of the densely-packed orchestra as a background—hidden at points by the obstructive trophies, but still visible and effective as a grand whole. But the brilliancy of the scene was not its chief interest. In that throng were gathered together some of the greatest names in the arts, sciences, and manufactures of the country. The various colonies and dependencies which carry England's empire as a girdle round the earth, were represented; and there, too, were the delegates of all great nations. In the persons of the Commissioners of 1851, the great exemplar of these peaceful contests was commemorated, and additional weight and solemnity were added to the occasion by the presence of the chief leaders of the State. When his Royal Highness and the other Commissioners had taken their seats, Earl Granville, who, and his colleagues, were grouped immediately in front of the dais, advanced, and handed to the Duke of Cambridge an address.

The Duke of Cambridge replied in a loud and clear voice which was distinctly audible at a considerable distance:

"We can not perform the duty which the Queen has done us the honor to commit to us as her Majesty's representatives on this occasion without expressing our heartfelt regret that this inaugural ceremony is deprived of her Majesty's presence by the sad bereavement which has overwhelmed the nation with universal sorrow. We share most sincerely your feelings of deep sympathy with her Majesty in the grievous affliction with which the Almighty has seen fit to visit her Majesty and the whole people of this realm. It is impossible to contemplate the spectacle this day presented to our view without being painfully reminded how great a loss we have all sustained in the illustrious Prince with whose name the first Great International Exhibition was so intimately connected, and whose enlarged view and enlightened judgment were conspicuous in his appreciation of the benefits which such undertakings are calculated to confer upon the country. We are commanded by the Queen to assure you of the warm interest which her Majesty can not fail to take in this Exhibition, and of her Majesty's earnest wishes that its success may amply fulfill the intentions and expectations with which it was projected, and may richly reward the zeal and energy, sided by the cordial coöperation of distinguished men of vari-

ous countries, by which it has been carried into execution. We heartily join in the prayer that the International Exhibition of 1862, beyond largely conducing to present enjoyment and instruction, will be hereafter recorded as an important link in the chain of International Exhibitions by which the nations of the world may be drawn together in the noblest rivalry and from which they may mutually derive the greatest advantages."

This concluded the portion of the ceremony which was appointed to take place under the eastern dome, and the procession slowly unwound itself, and proceeded in the same order as before down the nave. As it moved off the bands of the Foot Guards, stationed on the western platform, played Handel's "March" in *Scipio*, but when it had advanced well out of ear-shot the pipers of the Fusilier Guards, who closed the rear, struck up a pibroch which might have been very appropriate, but scarcely seemed to be appreciated by those near enough to suffer all its shrillness. Under the eastern dome, where the vast concourse of distinguished visitors not officially engaged in the ceremony had long been congregated, a dais had been erected hard by the Majolica fountain, where the Queen's Commissioners took their seats on the chairs of State provided for them. Of the ceremonial music the main feature was the overture by M. Meyerbeer, rich in variety of expression, and appealing everywhere with the energy of genius to the soul as well as to the ear.

The music applied by Dr. Sterndale Bennett to the ode by Mr. Tennyson which we published last week, produced a chorale of much musical value, but it was not the poetry of sound following the poetry of sense. The treatment was skillful, scientific, but conventional. The female and male voices were distributed and alternated rightly and effectively, but only as no good musician, without aid from the light of genius, could have failed to apply them. The poet had written for the musician; it is impossible not to read the ode without feeling that it was deliberately planned to give occasion to the full musi-

cal expression that it has, we think, failed to receive. It is not fair, perhaps, while hearing Dr. Sterndale Bennett's rendering of the three exquisite lines, "O silent father," etc., to dream of the music through which Mendelssohn would have known how to give them utterance. Dr. Bennett's music was very good, but wholly uninspired. The freshest and truest part of his chorale was the rendering of the three lines that begin, "O ye the wise who think," and we may include in the praise also the preceding couplet.

M. Auber's March, the other new contribution to the music of the day, was entirely graceful and pleasant. Of the performance of the band of eight hundred, and of the chorus of two thousand, praise can not be too emphatic. Every word from the two thousand voices came forth clear and musical, the word and the music were one, and there was no need of books for those of the great audience who sat or stood anywhere within fair hearing distance.

After the conclusion of the special music the Bishop of London, with much fervency of manner, read a prayer.

After the close of the prayer the Hallelujah Chorus was sung more effectively perhaps than it was ever sung before, and with this the religious part of the ceremony came to a conclusion. The Duke of Cambridge then rose, and in a loud voice said: "By command of the Queen I now declare the Exhibition open." The trumpet of the Life Guards saluted the announcement with a prolonged *fanfare*, and the crowd echoed it back with a cheer which was taken up and speedily spread from one end of the building to the other. This ended the official ceremonial. Part of the procession made its way to the picture galleries, and, the barriers having been removed which confined them to their appropriate quarters, the visitors rapidly dispersed all over the building. There must have been at this time twenty-five thousand people in the Exhibition; but, except in the passage north and south of the nave, there was little difficulty in moving about.

L I T E R A R Y M I S C E L L A N I E S .

RAVENSHOE. By HENRY KINGSLEY, author of "Geoffrey Hamlyn." Boston: Ticknor & Fields. 1862. Pp. 430.

THE contents of this semi-historic romance is divided into sixty-six chapters. They present the history of the Ravenshoe family, amid its varied and changing scenes. The story is much like a well-arranged panorama of sixty-six scenes. The various and numerous personages in the plot of the story are busy acting their parts, appearing and disappearing as the panorama moves on. The Ravenshoe family have an ancient origin away back in the times of Canute, and trace their history along a period of nine hundred years, to the reign of her present Majesty of England. The author, in his descriptions of these varied personages, keeps them fully occupied in talking and acting out the scenes of his story. They exhibit a large variety of human character, passion, and idiosyncracies, and in these respects show that they belong to our common nature. The phases of human life are presented in many word-paintings which the reader will recognize as true to life. The localities of the story are also varied, including London, Dublin, Oxford, and other places and scenes in the Old World. We refer the reader to the book itself, which it is enough to say is published by Ticknor & Fields.

THE COMING CRISIS OF THE WORLD; OR, THE GREAT BATTLE AND THE GOLDEN AGE. The signs of the times indicating the approach of the great crisis, and the duty of the Church. By REV. HOLLIS READ, author of "God in History," "India and its People," "Palace of the Great King." With an introductory note by Rev. STEPHEN H. TYNG, D.D. Columbus: Follett, Foster & Co. 1861. Pp. 345.

THE excellent author of this instructive volume has handed us a copy. It is a work not simply to be read, but to be studied, pondered, and inwardly digested. The views which it presents are quite out of the common track of thought, and although the reader may not exactly agree with all conclusions, yet he will be deeply impressed and instructed upon some of the greatest themes which can arrest the attention of the human mind. The introductory note of Dr. Tying is highly commendatory of the work and its doctrines, and all who know this eloquent and fervid preacher will be satisfied with his commendation of the work.

THE LIFE AND LETTERS OF WASHINGTON IRVING. By his nephew, PIERRE M. IRVING. Vol. I. New-York: G. P. Putnam, 532 Broadway. 1862. Pp. 463.

THE name of Washington Irving, a name so revered by his countrymen—a prince among literary men, and a man of renown the world over—will be quite enough to interest multitudes in the story of his life. His life so pure, so good, his character so high upon the roll of fame, will be read by all who

can admire the story of the life of such a man. In the varied scenes and sketches of his life-history embodied in this interesting book, the reader will find much that is attractive and beautiful in human character. Young men just entering on the great programme of human life may derive much that is useful and worthy of remembrance in following Mr. Irving along his pathway in life's journey. We shall never forget the last hour spent in his society at his own home. The conversation in part turned upon Spain—upon the Alhambra and its Moorish reminiscences, which he has immortalized with his pen. All the enthusiasm of earlier life kindled up and beamed forth in his expressive countenance. His life can hardly fail to be read by multitudes of his countrymen.

UNDER-CURRENTS. A Romance of Business. By RICHARD KIMBALL, author of "St. Leger," "Romance of Student Life," etc. Fourth edition. New-York: G. P. Putnam, 532 Broadway. 1862. Pp. 428.

THIS book is dedicated to Pelatiah Perit, President of the Chamber of Commerce, an eminent merchant of New-York. The first part contains nineteen chapters, Part II. twenty-three chapters, and last part twenty-four chapters. The fact that a fourth edition of this book has been called for is a good proof that the author has hit an important and popular chord. Wall street is a famous place. Its true history will never be written by human pens. The changes, the phases of human life and business life in Wall street would furnish a romance in real life every week all the year round. This book is instructive to business men, and especially to young men who are about entering on the great whirlpool of business life in New-York.

MARGARET HOWTH: A Story of To-day. Boston: Ticknor & Fields. 1862. Pp. 266.

THIS attractive story of to-day has no author's name, no author's preface, and no definite locality. A story of to-day—about human affairs, human life, human incidents, which are more or less incident to all people in civilized communities—which will interest the reader.

PRISON LIFE IN THE TOBACCO WAREHOUSE AT RICHMOND. By a Balls Bluff Prisoner, Lieut. WILLIAM C. HARRIS, of Col. Baker's California Regiment. Philadelphia: George W. Childs, Chestnut street. 1862.

LIEUTENANT HARRIS can wield the pen as well as the sword, and when his sword was taken from him and he became a prisoner, he resorted to the pen to while away the tedium of prison life. This volume will become a part of our country's history during these months of war, and battle, and blood. It will aid the future historian in his labors in writing up the history of the times which are so full of stirring events.

HEROES AND MARTYRS: Notable Men of the Time. Biographical Sketches of the Military and Naval Heroes, Statesmen, and Orators, distinguished in the American Crisis of 1861-1862. Edited by FRANK MOORE. With portraits on steel from original sources. New-York: G. P. Putnam, 532 Broadway. 1862.

WE have received from Mr. Putnam eight numbers of this work in quarto form. Each number is embellished with two portraits of men distinguished for their eloquence or valor in the present struggle. The work is an honor to our country in its artistic and literary aspects. It puts on record, in a permanent form, accurate and well-engraved portraits of men of distinction, and biographical sketches of their lives and actions.

COUNT CAVOUR: A Discourse on the Life, Character, and Policy of Count Cavour, delivered in the Hall of the New-York Historical Society, February 20th, 1862. By VINCENZO BOTTA, Ph. D., Professor of Italian Literature in New-York University, etc., etc. New-York: G. P. Putnam. 1862.

AMONG a numerous auditory, we listened with great pleasure to this eloquent discourse of Professor Botta. It was an able and worthy tribute to the memory of one of the most renowned statesmen of Europe and the regenerator of Italy.

THE PEARL OF ORR'S ISLAND: A Story of the Coast of Maine. By Mrs. HARRIET BEECHER STOWE, author of "Uncle Tom's Cabin," "The Minister's Wooing," etc. Boston: Ticknor & Fields. 1862. Pp. 437.

THIS is a renowned story from the pen of a renowned authoress. Its name, its scenery, and the varied and numerous personages which appear along its changing panorama are already widely known to the reading public, through the periodical press. But the public will be glad to have the whole story in a neat and attractive volume, in the usual style of these well-known publishers. The name and popularity of the greatly gifted authoress will secure for this volume a multitude of readers.

AGNES OF SORENTO. By Mrs. HARRIET BEECHER STOWE, author of "Uncle Tom's Cabin," etc. Boston: Ticknor & Fields. 1862. Pp. 412.

THE scenes of this story are laid in Southern Italy, the classic land of song and of history. It might be almost entitled *A Walk among Convents*. But the story—the country—the sunny climes of Southern Italy, with all the varied historic associations which abound in that land of song, add greatly to the attractions of this new volume of Mrs. Stowe. Many of our readers are aware that the authoress has been a traveler and sojourner in Southern Italy, where to a cultivated mind every thing is richly suggestive of instructive thought. Mrs. Stowe gathers up literary treasures in all lands and scenes which she visits.

MR. CARLETON has sent us "Our Flag," a poem in four cantos, by T. H. UNDERWOOD.

The present war seems to have stirred the hearts of the muse as well as the hearts of patriots. We shall have war songs enough to last a hundred years.

NEW METHOD FOR THE MELODEON, HARMONIUM, and other instruments of the organ class. Selected mainly from Zundel's Melodeon Instructor; to which are added a collection of the most popular songs of the day, and a variety of Psalm and Hymn tunes. Boston: published by Oliver Ditson & Co., 277 Washington street.

MR. DITSON has handed us a copy of this valuable and well-arranged work of 88 large quarto pages, filled with choice musical treasures. We have frequently advertised melodeons, Mason & Hamlin's and others, and it is quite fitting that we should commend the best volume of music from which the learner can best acquire ability to perform upon them. This work is the best for the purpose which we have examined, and we commend to all who can, both to purchase a good melodeon, and use this work in acquiring musical skill.

LYRICS FOR FREEDOM, and other poems. Under the auspices of the Continental Club. New-York: Carleton, publisher, late Rudd & Carleton. 1862.

THIS volume comprises some fifty to sixty poems or songs, on the various themes which the war and the tramp of armies, and the multiplied scenes of national convulsion have given rise.

CONGRESS HALL.—We invite attention to the programme of the proprietors of Congress Hall, in another column. We speak from personal knowledge and from observation in commending this well-kept establishment to the visiting public at Saratoga. The gentlemanly and courteous proprietors give their personal attention to their guests, and spare no efforts in providing for their comfort and gratification. Spacious parlors, extensive dining-rooms, with ample tables well spread with luxuries in variety, attentive servants in waiting, cool and comfortable sleeping apartments, fanned by the waving branches of overshadowing trees, invite to repose and impart an impression of quiet home feeling, very grateful to those who can appreciate these luxuries in a summer sojourn at Saratoga.

BOSTON AQUARIAL GARDENS, No. 240½ WASHINGTON STREET.—P. T. BARNUM, Esq., the renowned showman, has become the purchaser of these gardens, and is fitting them up in new and attractive forms to interest and instruct the public, concerning the forms, habits, and appearance of the curious denizens of the deep. The thanks of the public are due to Mr. Barnum for his efforts and enterprise in thus contributing to the gratification, amusement, and valuable instruction, presented in these beautiful Aquarial Gardens. We do a service to this popular science in commending these gardens to popular resort.

A COLLECTION of fossil remains, found in the Portland stone quarries, has been made for the Connecticut Historical Society. Professor Hitchcock pronounces the fossils relics of remote antiquity. Among the specimens are footprints of enormous birds and four-footed beasts, impressions of fern-leaves and fragments of a behemoth.

It is now fully determined that Napoleon III., will not visit the International Exhibition in London. *The Moniteur* says so.

THE PRINCE AND THE JEWS AT JERUSALEM.—Ten days after the arrival of the Prince in the Holy City, he met by appointment, at the western wall of the temple, the Chief Rabbi and others of the heads of the Jewish community of Jerusalem. The Chief Rabbi appeared in his full robes, and with the insignia of his office as Hacham Bashi, which, being an appointment by the Sultan, confers on him great civil powers and authority. The Prince received the deputation in a most gracious manner, and after the ordinary formalities entered freely into conversation with the Chief Rabbi; of whom he inquired if he believed the massive wall by which they stood to be a portion of the great master-work of King Solomon. The Chief Rabbi's explanatory remarks in answering this question in the affirmative evidently impressed the Prince; for he raised the covering from his head in token of the sincere veneration which he felt for the sacredness of the spot; and who can tell what associations of thought crowded on him at that moment, for he immediately requested the Chief Rabbi to offer up a prayer for his "mother, the Queen of England!" The Chief Rabbi then prayed aloud in Hebrew for the health of "Queen Victoria," and with great fervency, that she might long continue to reign, and with wisdom like unto that of Solomon. At the conclusion, all the deputation ejaculated "Amen, Amen." The prayer being interpreted to the Prince, he was greatly moved, and even more so when the Chief Rabbi followed this prayer with an invocation to the King of kings that the soul of the late Prince Consort might rest in peace in the realms of eternal bliss.

The Prince, accompanied by the Chief Rabbi, then visited the synagogues, which were brilliantly lighted up and decorated as on a festival, and were crowded to excess. Prayers were there offered up for the Prince, Prince Alfred, and all the royal family. At the first synagogue which he visited the Prince asked to see one of the scrolls of the law, and he examined the sacred volume with great earnestness. The Prince then went with the Chief Rabbi to view the two new synagogues and the Rothschild Hospital, and during this time they held almost uninterrupted conversation in the Italian language. The amiability of the Prince on this occasion was as conspicuous as was the deep interest which he exhibited in all that took place; and his most courteous demeanor throughout toward the Chief Rabbi and the whole Jewish community is creditable alike to his heart and to his enlightened mind. — *Jewish Chronicle*.

ENORMOUS CAPTURE OF WHALES.—On Tuesday, the 8th instant, a large shoal of "caasing" whales were seen approaching the land in the direction of Whiteness. The welcome news soon spread, and boats were quickly manned by brave men of all classes, fully equipped with harpoons, lances, etc., to do battle with these monsters of the deep. Undaunted by want of success and the inclemency of the weather, after considerable delay, the men succeeded in bringing the pack into the Voe of Weisdale. When they got into shallow and muddy water, their assailants finding some difficulty in landing them, and no doubt wishing to enjoy the whole instead of two thirds of the proceeds of their capture, commenced to attack them at sea. The boats being numerous, the whales close together, and, it is unnecessary to add, the men most dexterous in the use of the various instruments of death,

in a short time the whole pack was, with few exceptions, either killed or wounded. After being killed, the animals were generally tossed ashore, but many escaped wounded from their captors, and, dying from their wounds, sank. After a lapse of twenty-four hours their carcasses reappeared on the surface, and, being picked up, were landed at places most convenient for the captors. Owing to the great number of places at which they are landed, and the great distances they are from each other, it is impossible as yet to say the exact number captured. Some reports fix it at about 500, others at 200; but probably 300 or 400 is more correct. In the affray several boats were stove in, and others completely smashed and their crews thrown into the sea; but, fortunately, all the men were rescued immediately, and nothing serious was the result. The news of this large capture of whales created considerable excitement in Lerwick, and on Saturday several gentlemen proceeded to Weisdale, some on business and others on pleasure, amongst whom were some gallant riflemen, who had determined to try the effect of their Enfield balls on the monsters of the deep, but were unfortunately too late.—*Shetland Advertiser*.

THE GREAT SHIP CANAL.—The *Siccle* publishes a long letter from a private correspondent, giving a glowing account of the progress of the works in the Isthmus of Suez, which he has recently visited throughout their whole extent, in company with M. de Lesseps and a party of twelve gentlemen and four ladies. The writer says: "I can now assure you, from personal experience, that sixty-seven kilometers of the Suez canal are already navigable; that the waters of the Nile are conveyed into the middle of the desert; that 20,000 men are now employed, and that their number will be increased to 40,000 next month, so that in less than three months the cutting through the threshold will be completed. If any persons now doubt the feasibility of the undertaking, let them visit it, as I have, and all their doubts will vanish."

THE OCEAN.

O MIGHTY mausoleum, vast, sublime!
Where many a brave man's whitened bones repose,
Down where perchance the blushing sea-flower
grows,
And rare weeds up the coral-pillars climb.
Mayhap mysterious creatures crawl or swim
Mid skulls and bones, shell-crusts thickly o'er
Fantastic made, lying on jasper floor
Of some old pearl-roofed cavern deathly dim.
O mighty king! in fourfold coffin shut,
When Death has shown thy compeers what we are,
The grandest, most imposing sepulcher
That man can build were but a sorry hut
Compared with his who grappled with the wave,
But yielding, dropt into his broad sea-grave.

J. E.

ALLITERATION.—As an altogether admirable and amusing attempt at alliteration, an anonymous author astonished all admirers of alliterative ability, some seasons since, by the subjoined singularly successful specimen:

"Surpassing sweet, seraphic strains she sings,
Softening sad spirits' sympathetic strings;
Such soul subduing sounds, so strangely soothing,
She seems some saintly spirit sorrow smoothing."

THE TRUE WOMAN.—The true woman, for whose ambition a husband's love and her children's adoration are sufficient, who applies her military instincts to the discipline of her household, and whose legislative faculties exercise themselves in making laws for her nurse; whose intellect has field enough for her in communion with her husband, and whose heart asks no other honors than his love and admiration; a woman who does not think it a weakness to attend to her toilet, and who does not disdain to be beautiful, who believes in the virtue of glossy hair and well fitting gowns, and who eschews rents and raveled edges, slipshod shoes and audacious make-ups; a woman who loves more than she reasons, and yet does not love blindly; who never scolds and rarely argues, but adjusts with a smile; such a woman is the wife we have all dreamed of once in our lives, and is the mother we all worship.

THE LONELY GARDENS ON THE THAMES.—There is a pretty garden on the river Thames; it has ancient and wide-spreading cedars, beds of rare flowers, and pleasant grass-plats. In the hot days the passengers up and down the river point to it, and say how grateful the shade of its trees must be, and how delicious the odors of the flower-beds! But not a human creature is ever seen there. The gay parterres are only dimly discerned at an undistinguishable distance, the shade gives no enjoyment, and the little Eden exists useless amid a dense and gasping population. If some curious and persistent individual should land near Chelsea Hospital, and try to find out a land-side entrance by which this garden may be accessible, he discovers nothing but a lofty, dreary, dead wall. You would think, as you walk under that dead wall, that some miser had built it up that no man might have a breath of the air that passes across his property without paying for it. This charming spot was many years ago set apart by a benevolent man for the general good of his species. Sir Hans Sloane bought it and gave it to the Faculty of Physicians, that it might be a Botanic Garden, to be cultivated for the discovery of new vegetable medicines. This use has long ceased. There are philanthropic men among this Faculty of Physicians; will no one of them move his brethren to order that this dreary wall be pulled down, and a light rail be substituted? Perhaps, if he be very liberal, he might even go so far as to propose that the public might sometimes be permitted to walk in these pleasant and now unused grounds.

PHYSIOLOGICAL PHENOMENA.—M. Louis Lucas, a gentleman well-known for his scientific attainments, lately received a select circle of visitors at his house, to exhibit and explain the principle of an apparatus of his own invention, by which a physiological fact of great importance is rendered apparent, namely, direct action of the living frame on the magnetic needle. The apparatus itself is of extraordinary simplicity. A single element of Bunsen's battery has its poles in communication with an electro-magnetic bobbin, surmounted by a graduated disk, bearing a magnetic needle which oscillates freely around its center, as in the common compass. This part of the apparatus is protected by a glass shade; the plate may be raised and lowered at pleasure by a wheel and rack. The conducting wires, after communicating with the bobbin, branch out toward the operator, and are connected together by a loose metal chain. The apparatus being in this state the needle remains perfectly quiescent, until the operator takes hold of

the chain either with one hand or both, when the needle at once begins to move, describing arcs of from ten to ninety degrees. No principle hitherto admitted in physical science can account for this strange phenomenon, and we are compelled to admit a physiological action capable of producing such motion. The experiment was varied in many ways in our presence, and we were ourselves allowed to test our individual power on the needle. That the cause of the motion was of a physiological nature was further proved by the circumstance that the oscillations of the needle varied in intensity according to the persons experimenting, and even according as the same person might be differently affected, either by tranquillity or a warm discussion, such different states naturally modifying the susceptibility of the nervous system. Stranger still, some persons present produced the oscillations by merely touching the chain with a glass rod about two meters in length, glass being, as our readers know, a non-conductor. Whatever explanation may hereafter be given of M. Lucas's discovery, one fact seems even now indisputable, namely, that the human body may directly influence the needle; what consequences may be evolved therefrom, time alone can show.—*Galignani*.

A STRANGE STORY, not by Bulwer, is going the rounds of the English press. A lately-married Irish earl wishing to improve his old mansion, set architects and carpenters at work, who discovered a room hermetically bricked up. It was fitted up in the richest style of one hundred and fifty years ago, and on a couch lay the skeleton of a female, while on the floor was the skeleton of a man, presenting evident traces of violence. Jewels and dresses lay scattered about the room, but the fearful secret had been so well kept that no tradition could be remembered which would give any clue to the affair. The survivors—an injured husband probably among them—walled up the apartment, which has kept its dread secret over a century and a half.

A PRACTICAL REPROOF.—Richard I., having taken Philip, the martial bishop of Beauvois, threw him in prison; and the Pope sent to desire his release as a son of the Church. Richard sent the Pope the armor the bishop wore when taken, with these words of Jacob's sons: "This we found; see whether it be the coat of thy son or no."

THE TAGLIONI PEDIGREE.—The mother of the celebrated Taglioni died on the 26th February, from an affection of the stomach. She was a woman of great worth and genius, and was the daughter of Gustavus III.'s Chapel-Master. She perfectly remembered the death of that monarch, whom our readers will recognize as the hero of one of their favorite operas. After the assassination of that king, she married Taglioni, a celebrated ballet-master of his day, and the illustrious "Sylphide" was the fruit of the marriage. The mother and daughter always lived together. Marie Taglioni married the Count Gilbert de Moinsins, and her daughter is the Princess Troubitzkoy.

KING HENRY VIII., was going to hang the mayor of Boulogne for not firing a royal salute as he approached that municipality. His honor said he had twenty-four reasons for not doing it, the first of which was, he had no powder! "Not a word more," said blunt King Harry, "you are forgiven."

LOCK-JAW CURED.—The following remarkable case of the cure of lock-jaw is related by the *Italian Medical Gazette* of Milan. A hair-dresser of that city accidentally received a cut with a scythe on the palm of his left hand, near the wrist. This occurred about the beginning of March, 1861; the wound healed in six days, and it was not until the 30th following that, on rising from his bed, he felt some difficulty in opening his mouth, beside contractions in his left hand, which he could not stretch out, and pains in the right hip and thigh. During the first days, these phenomena disappeared on going to bed, but commenced again as soon as he rose and exposed himself to the open air. On the 10th of April, the symptoms becoming more intense, he was taken to the hospital. On the following day a spasmodic contraction of the muscles of the lower jaw, and rigidity in those of the neck were observed; the left hand experienced a contraction every time it was taken from under the bed clothes, and the pain on the right side continued; the pulse was very slightly agitated. Sixteen grains of chloride of barytes, dissolved in a pound of distilled water, were prescribed, to be taken in the course of twenty-four hours. This treatment was continued until the 21st, when the symptoms of lock-jaw having nearly entirely disappeared the dose was reduced to eight grains a day, and the remedy entirely left off on the 26th; two days later the patient left the hospital in perfect health.

REPLANTING FRANCE.—The French Government is seriously occupied with a scheme for replanting the mountains in France, the diminution of timber-trees creating considerable alarm. The Commissioners of Woods and Forests have announced to the commercial authorities that they will supply all persons with seeds and plants who will undertake to replant the mountain sides. The communal authorities are to address their demands to the Prefect of their department, and private individuals to the Conservators of Waters and Forests. In case of the failure of the seeds or plants, private individuals shall not be called on to pay for them, provided they are planted under the direction of government agents. Landed proprietors who plant their mountains at their own expense are to be entitled to a premium.—*Paris letter.*

THE grand essentials to happiness in this life are something to do, something to love, and something to hope for.

As when we have thoughtlessly looked at the sun, our dazzled eyes, though closed, behold it still, so he who is smitten by love, beholds by day and by night, the radiant image of her upon whom he has too rashly gazed.

THE young lady who took the gentleman's fancy has returned it with thanks.

CONGRESS HALL, SARATOGA.

HATHORN & McMICHAEL.

SARATOGA SPRINGS, June, 1862.

THE Proprietors and Conductors of this immense and favorite establishment announce to the traveling public that its doors and saloons will be opened for the reception of company on the fifteenth of June, and remain open till the first of October.

There is so much of personal comfort, pleasure, and health to sojourners at a summer watering-place depending on the direction and management of a great Hotel like Congress Hall, that the Proprietors deem it due to the public and just to themselves to give ample information of what they have done by lavish expenditure for the reception and accommodation of their old friends and new visitors who may seek a sojourn at Saratoga the present summer. They beg to enumerate some of the comforts, advantages, and attractions of Congress Hall, which invite visitors to Saratoga to seek a home in its spacious and commodious apartments and saloons.

1. Congress Hall is a long-established and favorite resort of visitors to this valley of fountains and mineral springs. Here numerous friends—of high culture and intelligence—meet and sojourn together in social intercourse, much like the members of a large family.

2. The Proprietors feel confident in saying Congress Hall ranks first among watering place hotels in the world.

3. There is but one Saratoga in the world. And Congress Hall is located directly adjacent to the famous Congress Spring, in a fine old shady grove, cool and delightful.

4. The accommodations of Congress Hall have

been much increased. Large and expensive improvements in the building, in furniture, and in decorations have been made. The parlors are spacious and the dining saloons ample and convenient. Prompt, faithful, and attentive servants will be in constant attendance, and no neglect of duty or inattention to the comfort of visitors will be allowed by the Proprietors.

5. Congress Hall is provided with an immense promenade piazza, 251 feet long by 20 wide, sheltered from the rain and shaded from the sun by lofty columns, trees, and luxuriant shrubbery. It has in the rear 1000 feet of piazzas. It has two spacious parlors, newly furnished and decorated, 70 feet by 32, and 80 by 32. It has 296 sleeping-rooms, besides private parlors.

6. The tables of Congress Hall, 600 feet long, will be daily spread with viands of ample variety and abundance, and served by attentive waiters.

7. The Proprietors are determined to spare no pains and efforts to render Congress Hall a home of pleasant resort and comfort unsurpassed by any hotel in the country. They only add, that among the aggregate arrivals of *FORTY THOUSAND* at all the hotels, Congress Hall carried off the palm in numbers. We say this only in the spirit of friendly competition. We shall cordially greet the arrival of our old friends, and we hope to receive many new ones, with our best efforts to please and satisfy all who favor us with their company.

We have erected spacious barns and stables, and carriages and horses can be promptly furnished to order for rides, or horses and carriages of visitors boarded at livery.



Engraved on steel by the artist of Geo. E. Perkins & Co. New York, N.Y.

J. Ericsson

class than professed astronomers, for whose benefit the existing histories have been mainly composed." It therefore appeared to the author, "that an attempt might be advantageously made to treat the history of ancient astronomy, without exclusive reference to physical science, and without any pretension on his part to that proficient and comprehensive knowledge of modern mathematical astronomy which some of his predecessors in the treatment of this subject have possessed."

Like several of his predecessors, Sir George begins with the astronomy of the Greeks, "as affording a firm footing to the historian," and afterward proceeds to determine how far they derived their knowledge from foreign nations. With this object in view, he divides his work into eight chapters, as follows:

Chapter I. Primitive Astronomy of the Greeks and Romans.

Chapter II. Philosophical Astronomy of the Greeks from the time of Thales to that of Democritus.

Chapter III. Scientific Astronomy of the Greeks from Plato to Eratosthenes.

Chapter IV. Scientific Astronomy of the Greeks and Romans from Hippocrates to Ptolemy, 160 B.C. to 160 A.D.

Chapter V. Astronomy of the Babylonians and Egyptians.

Chapter VI. Early History and Chronology of the Egyptians.

Chapter VII. Early History and Chronology of the Assyrians.

Chapter VIII. Navigation of the Phœnicians.

During the long period of five centuries which elapsed between Homer and Herodotus, (born 384 B.C.) the Earth was regarded as a circular plane, surrounded by the heavens, which was a solid hemispherical vault. The ocean was supposed to flow round this plane as a horizon, and the stars to rise from and again set on the circle of water; and those who did not accept this rude idea from daily observing the diurnal reëappearance of the heavenly bodies, regarded the lower hemisphere as a cold and dark abode, communicating with the upper Earth only through the mouths of caves. It is difficult to believe that during so long a period of time such gross ignorance could have prevailed. However limited was the extent of the habitable earth in those early days, the

positive fact that every advance upon its surface in any given direction disclosed a new circular plane, overpassing that which preceded it, ought to have established it as a truth, that the Earth was at least a rounded mass, disclosing more and more of its rotundity as the traveler advanced over its surface. The certainty, too, that the Earth must have had an under side, either solid or fluid, or both, should have led to the conclusion that the under would resemble the upper side, since every new advance on the upper side, showing its rotundity, proved that the part of the under side not previously discovered was rounded. We have no doubt, therefore, that the roundness of the Earth would have been discovered by actual observation, had not erroneous opinions been propagated by the poetry and mythology of the times.

The necessity of obtaining certain measures of time led to an accurate observation of the movements of the Sun and Moon. The alternate recurrence of day and night, as shown in the Sun's diurnal course, must have soon determined the length of a day, the fundamental unit in the measure of time. The study of the Sun's annual course, marked by the differences in the seasons, though of greater difficulty, must have led to the discovery of the Sun's annual course, or to the length of the year, and also to the determination of the equinoctial and solstitial points.

As many of the most interesting occupations of civil life depended upon the seasons, the division of the year into four parts was indicated by the wants of man, as well as by the aspects of nature. It is singular, however, that the Egyptians and the ancient Germans had only three seasons—spring, summer, and winter; and it is curious, as remarked by Sir George Lewis, that in our own language three of the seasons are denoted by Anglo-Saxon words, whereas the word autumn is borrowed from the Latin. Sir George accounts for this by remarking that autumn is a less definite season; but we can hardly admit that the ripening of the fruits of the Earth, and the beautiful decay and fall of the leaf, are not as characteristic of a fourth season of the year as the torpor of winter, the heat of summer, or the revival of nature in spring. "Beside the recurrence of the seasons," as our author observes, "there were certain special and local phenomena which returned at annual pe-

riods;" the Etesian winds for example, the migration of birds, and the inundation of the Nile.

From the earliest ages, time was measured by years. Homer often mentions a definite number of years. As Sir George remarks, each Hellenic city, in which his poems were read, must have conceived that the siege of Troy occupied ten tropical years, and that Ulysses had passed eight of the same years in the island of Calypso. "It is clear," he adds, "that from an early period there must have been a measure of the age of man. Husbands and wives must have known each other's age. Parents must have known the age of their children. Hesiod advises a man to marry about the age of thirty years, and his wife is to be nineteen years old at her marriage. The same early poet mentions a boy of twelve months and also of twelve years. Homer speaks of Nestor having outlived two generations, and ruling over the third. Hesiod says that the raven lives nine generations of man, the stag four generations of the raven, the crow three generations of the stag, the phoenix nine generations of the crow, and the nymph ten generations of the phoenix."

Solon measured the successive ages of man by ten periods of seven years each; the perfection of man's physical strength being in the fourth period, from 28 to 35, and the perfection of his intellect in the seventh and eighth, or from 49 to 63 years of age.

From these, and various other facts, Sir George considers it certain that the solar year, with its equinoxes and solstices, was rudely known to the Greeks at a remote period.

The lunar month of 30 days (29 days 12 hours 44 minutes) was known in the time of Homer and Hesiod, the year being 360 days, and the number of months 12. The lunar year, however, consisting of 12 periodical lunations of 27 days 7 hours 43 minutes, was 354 days 8 hours 48 minutes 36 seconds—11 days shorter than the solar year. It was, according to Macrobius, the common year of the Greeks, and it appears that the length of the month was, in conformity with this, only 28 days.

The Greek States had not only no calendar of time, but no common chronological era for fixing the relation of past events. The Trojan war was used by the Greeks for this purpose, and the foundation of

Rome by the Romans. The era of Nabonassar was employed only for astronomical purposes. Among the nations bordering on the Mediterranean, a solar year of twelve lunar months was recognized from a remote antiquity; but still divergent or abnormal years are said to have been used by ancient nations; the Arcadians, a year of three months; the Carians and Acarnanians, one of six months; the Lavinians, one of 374 days; the early Egyptians, one of three or four months; and the ancient Romans, one of ten months, or 304 days, instituted by Romulus. Sir George Lewis considers most of the abnormal years as not having been really in use. The decimestrial year of the Romans commenced in March, and consisted of March, April, May, June, Quintilis, Sextilis, September, October, November, and December—those marked in Italics having 30 days, and the rest 31 days, or 304 in all. Numa is said to have reformed the year of Romulus by adding 51 days to make a year of 355 days. Two new months, January and February, were prefixed to the other ten; but as this new year was still 10½ days too short, Numa brought it into harmony with the solar year by intercalating a month of 22 or 23 days in alternate years, which still made the year too long. After a long and able discussion of the discordant opinions of Plutarch, Livy, Macrobius, and other ancient writers, and of Niebuhr, Greswell, and others, on the Romulean year of 304 days, Sir George Lewis concludes "that it never had any real existence, and was merely a fiction, contrived to account for the numerical names of the Roman months."

At an early period, the Greeks had made observations on the fixed stars, and even given them names, and grouped them into constellations. Homer mentions the Pleiades, the Hyades, Orion, Bootes, and the Bear, which he says is also called the Wain. The Bear alone, of all the constellations, he says, is never submerged in the waves of the ocean, and keeps watch upon Orion. Hence, it would appear that the constellation of the Bear included all that part of the heavens which never sets, or that within what has been called *the circle of perpetual apparition*. Bootes is described as "tardily setting," and Sirius as the "Dog of Orion." Hesiod also mentions three stars and constellations, and

connects the different operations of the husbandman with their rising, setting, and culmination.

The planets do not seem to have been observed in early times. Hesiod refers to no planet. Venus, under the name of Hesperus, is mentioned by Homer and Sappho. The morning and the evening star were not identified till the age of Pythagoras. This supposed ignorance of the planets is a proof that we are not in possession of the early astronomical knowledge of the Greeks. It is impossible that the rudest observer could have seen Jupiter, Saturn, and Mars, in their direct and retrograde movements among the stars, sometimes in conjunction with each other, sometimes passing close to important fixed stars, and frequently suffering occultation by the Moon, without recording their observations, and endeavoring to explain them. We can not doubt, therefore, that the planetary astronomy of the Greeks has been lost.

Mr. Lewis concludes his first chapter by showing that the religion and mythology of the early Greeks had hardly any reference to astronomy or to the worship of the heavenly bodies, and that the divination of the same people had no connection with the heavenly bodies. Like other people, they viewed with alarm eclipses, comets, and meteors; but they had no system of astrology till they received it from the Chaldeans, after the time of Alexander.

After detailing in his second chapter the mythological stories of Atlas, Hyperion, Uranus, Palamedes, Chiron, Museus, and Nausicaa, Sir George Lewis proceeds to give an account of the discoveries of Thales, which he considers "the earliest historical name with which we can connect the scientific pursuit of astronomy in Greece." He is said to have flourished between 639 and 546 B.C., and to have predicted the total eclipse of the Sun, which put an end to the battle between the Medes and Lydians.* In a visit to Egypt, he is said to have obtained much astronomical and geometrical knowledge; to have measured the height of the pyramids from their shadows; to have fixed the year at 365 days; and to have ascribed solar and lunar eclipses to their true cause. He is said also to have determined

the ratio of the Sun's diameter to its apparent orbit, and to have found that the Moon's diameter was the 726th part of that of the Sun.

With such astronomical knowledge, it is difficult to reconcile other astronomical opinions which have been ascribed to him; such as that the Earth floated upon the waters like a ship—being too heavy to be supported by air—and that the fluctuations of the underlying water were the causes of earthquakes. It is obvious, therefore, as Sir George Lewis justly remarks, that Thales was not cognizant, as has been supposed, of the spherical form of the Earth. We can not, indeed, see any evidence of his having made a single step in astronomical discovery; and Sir George is of opinion that even "the connection of Thales with the eclipse is subject to greater doubts than the occurrence of the eclipse itself."

The alleged reform of the Athenian calendar by Solon, and the astronomical opinions of Anaximander, Anaximenes, Heraclitus, Xenophanes, Parmenides, Empedocles, Anaxagoras, and Diogenes of Apollonia, so well elaborated by our author, are hardly worthy of being extracted, from the contradictory testimonies of ancient writers. If genuine, they exhibit only the ignorance of their authors, and they do not constitute the smallest step to astronomical truth.

Although Socrates considered astronomical inquiries as a waste of valuable time, yet, in his day, a real reform of the calendar seems to have been introduced by Meton, an Athenian citizen, in 432 B.C. In the Greek year of 360 days, and in the reformed year of Solon of 354 days, the deviation from the solar year was so great, that an intercalation was necessary to keep in harmony the calendar and the seasons. In the earliest intercalation—namely, the biennial or *trieteric*—an additional month was inserted in every alternate year. The next intercalation was the octennial, or *octoateric*, which assumed very nearly the true length of the solar year—namely 365½ days. Instead of determining the year as we do by the Sun, the ancients regulated its length by fixing the calendar months by the course of the Moon, and bringing the year thus obtained (354 days) into harmony with the solar year, by intercalary days. The deficiency of 365½—354=11½ days, might have been made up, as is said to have been proposed by Eudoxus, by a *quadrennial* intercalation; yet

* This eclipse, according to Mr. Airy, took place on the twenty-eighth May, 585 B.C., when Thales was 54 years of age. See *Phil. Trans.* 1857, p. 179.

it does not seem to have been used in any Greek calendar. Although, by multiplying $11\frac{1}{2}$ days by 4, we obtain 45, an even number of days, yet this would form only $1\frac{1}{2}$ lunar months; and as it would be desired, on grounds not only of convenience, but also of religion, to intercalate entire months, an *octennial* was preferred to a *quadrennial* period. Since, therefore, $11\frac{1}{2} \times 8 = 90$ days, or 3 months of 30 days, a month of 30 days was intercalated in the 3d, 5th, and 8th years, in order to bring the year of 354 days into close accordance with the solar year of $365\frac{1}{4}$ days.

Owing to the solar year being 365 days 5 hours 48 minutes 48 seconds, a deviation of 18 days from the Moon occurred in the course of a century, and this defect was cured by the Metonic cycle of 6940 days, divided into 19 years and 235 lunar months;* but though it made the months coincide more closely with the Moon, it made the year agree less exactly with the Sun.

The Metonic cycle was generally used in Greece; and Dr. Whewell remarks, that it is so exact as to be still used in calculating the time of new Moon, for the time of Easter. The Greeks had, therefore, attained to great accuracy in determining the lengths of the lunar months and the solar year.

As Meton had taken the solar year at $365\frac{1}{5}$ days, $\frac{1}{5}$ th of a day longer than the year of $365\frac{1}{4}$ days, Callippus proposed a new cycle of 76 years, quadrupling the Metonic period. Deducting one day from this, he reduced the solar year to the more accurate one in the octoateric cycle. The lunation was also more exact, so that the Callippic period, harmonizing more closely than the Metonic with the Sun and Moon, was used by scientific astronomers, but never applied by the Greeks to their civil calendar. It commenced 330 B.C.

A great step is supposed to have been taken in astronomy by Philolaus, a follower of Pythagoras, who flourished in the time of Socrates. We have no means of ascertaining whether the Philolaic system, supposed by many modern writers to be an anticipation of the Copernican, was a hypothesis which belonged to the disciple or to his master. At all events, we may consider it, as Sir George Lewis does, as the dogma of the Pythagorean school, about the end of the fifth century B.C. In

this hypothesis, an invisible mass of fire occupies the center of the system, and is called the "hearth of the universe," "the watch-tower of Jupiter," "the altar of Nature," etc. Round this fire revolve ten bodies in circular orbits: at the greatest distance, the fixed stars; next the five planets, Saturn, Jupiter, Mars, Venus, and Mercury; then the Sun, then the Moon, and then the Earth; and then, solely to *make up the ten*, the Antichthon, a body nearer to the central fire than the Earth, and *invisible to the Earth's inhabitants*, like the central fire! To suppose such a system in any way resembling the Copernican, except in the fancy that the Earth is a revolving body, would be to do violence to astronomical truth. Another view of the Pythagorean doctrine, supported by Roth, a recent writer, is, that the Earth was the center of the system, with the fire in its center, and the Moon for the Antichthon.

The Pythagorean doctrine of the Music of the Spheres has a poetical interest. The planets were supposed to emit sounds from their different spheres, which were combined into a harmonious symphony: the Moon representing the grave end of the scale, the starry sphere the highest, and the most rapid of the spheres the acute end. The inaudibility of the sounds was ascribed to their having been constantly heard; and Cicero tells us that they were so loud, "as to transcend the capacity of our sense of hearing!"

The opinions of Leucippus, the founder of the Atomic philosophy, and of his friend and disciple Democritus, exhibit no advance toward truth. That the planets were placed between the Moon and the Sun, which was the most distant body from the Earth; that the Earth was a circular plane suspended in the center; and that lunar were more frequent than solar eclipses, because the orbits of the two bodies were unequal, are opinions ascribed to Leucippus, and hardly more ridiculous than those of his disciple Democritus, who converted the circular plane of his master into a hollow disk. It is some compensation, however, for this and other fancies, that he held the Sun to be an ignited mass of stone; the Moon a solid body, with mountains and valleys; and the other planets of the same constitution. He maintained the doctrine of a plurality of worlds, of different magnitudes, and at different distances from each other. In our author's

* Hist. Inductive Sciences, vol. i. pp. 128-132.

third chapter on the scientific astronomy of the Greeks, from Plato to Eratosthenes, we may expect to meet with facts well observed, and speculations of a somewhat inductive character. Plato appears to have maintained that the Earth was an immovable sphere, suspended in the midst of the universe; and there is reason to believe, from the celebrated passage in the *Timæus*, that he supposed it to revolve upon its axis. Mr. Grote* has recently maintained that the word *εἰλλομενην* indicates that the Earth turns *with* the cosmical axis, like a joint of meat fixed upon a spit, and not *round* or *upon* it, as others had supposed. Sir George, however, considers the Greek word as meaning *revolving*, and understands from it, as Aristotle seems to have done, that the Earth turns round the axis of the world as a geometrical line.

Plato mentions seven planets: Lucifer and Hesperus, the morning and evening star, which he regards as only one planet, or Eosphorus, (Venus;) Stilbon, or Mercury; Pyroeis, or the Fiery, namely, Mars; Phaethon, (Jupiter,) the slowest planet but one; and Pheneus, (Saturn,) the slowest of them all.

Eudoxus, a mathematician and a geometer, executed a descriptive map of the heavens, in two parts; one called *Enoptron*, or Mirror, and the other, the *Phenomena*, or Appearances; and it continued to be used as a practical manual of sidereal astronomy till the sixth century of our era. He conceived the stars to be distributed into constellations, with recognized names, and he defined them in relation to the zodiac, and the tropical and arctic circles. Eudoxus takes no notice of the planets in these works; but he had the honor of giving the first theory of their motion, which at last assumed the form of the Ptolemaic system. He employed twenty-six revolving spheres for producing the complex motions of the planets—namely, six for the Sun and Moon, and twenty for the other five planets. The following are the periodic times of the planets:

	According to Eudoxus.	True Time.
Mercury, ...	1 year.	0 years 87 days 23 hours.
Venus, ...	1 "	0 " 224 " 16 "
Mars, ...	2 "	1 " 821 " 28 "
Jupiter, ...	12 "	11 " 815 " 14 "
Saturn, ...	30 "	29 " 174 " 1 "

The astronomical opinions of Aristotle

* Dissertation entitled, *Plato's Doctrine respecting the Rotation of the Earth*. London. 1860.

have a high degree of interest, considering the vast number of subjects which he includes in his philosophy. In a spherical universe, the celestial bodies of a spherical form are fixed, moving only with the spherical orbs to which they are attached. From an occultation of Mars by the Moon, which he saw, he supposed that some of the planets were farther from the Earth than the Sun or Moon. Rejecting the absurd opinions of his predecessors, he shows that the Earth is at rest in the center of the universe. He infers the spherical figure of the earth from the eclipses of the Moon, and from the sphere being the form taken by matter gravitating to a center. He believes that its size is inferior to that of some of the other heavenly bodies, being, according to the mathematicians, four hundred thousand stadia in circumference.

Aristotle distinguishes comets from planets from their wandering beyond the zodiacal band; but he regards them as of the nature of meteors, and as existing in the region round the Earth. The Milky-Way, which Democritus had justly regarded as a collection of small stars, very near each other, was supposed by Aristotle to be of the nature of meteors.

Hicetas of Syracuse, probably a cotemporary of Plato, supposed that the diurnal motion of the Sun, Moon, and stars might be produced by the rotation of the Earth upon its axis. Heraclides maintained the same doctrine; but they both believed that it held its central position in the universe.

About the close of the fourth century B.C., astronomy had assumed such a state that histories of its progress were composed by Theophrastus and Eudemos, disciples of Aristotle. Without a motion of rotation or translation, the Earth occupied the center of the universe, while the Sun, Moon, five planets, and the fixed stars were carried round it, and attached to solid transparent spheres. The use of astronomy in agriculture, navigation, and war had been pointed out by Plato, and the Greeks were now studying it in its practical applications. Meton had placed a sun-dial on the Pnyx at Athens in 438 B.C., and by this instrument the day was divided into twelve parts, from sunrise to sunset—the length of the hours, as well as the day, varying with the seasons. As the dial was useless in cloudy weather, clepsydræ, or water-clocks, were used for

measuring time at night, or in the absence of the Sun. In these instruments, the time was measured by the flow of water from an orifice in a cylindrical vessel; and they were used in Athens, in the time of Aristophanes, for regulating the length of speeches in courts of justice. Plato is said to have used one for measuring time at night, and the first is said to have been erected in 159 B.C., in a public place in Rome. Some time later, in 140 B.C., Ctesibius erected a complicated clepsydra at Alexandria. Sun-dials, consisting of a hollow basin, and a gnomon, which cast its shadow on the hour lines, had been introduced into Rome from Sicily after the first Punic war, in 263 B.C., and an improved one by Philippus was set up in 160 B.C.

Astronomy was now treated geometrically by Autolycus and Euclid, in works still extant. Autolycus, who flourished 320-300 B.C., wrote a treatise "On the sphere in motion," and another "On the risings and settings of the stars." In the first, the Earth is placed in the center, and the apparent motion of the starry vault is explained upon this hypothesis. In the second, he treats of the true and apparent risings and settings of the stars. Euclid's treatise, entitled *Phenomena*, is of a more advanced character. The Earth is regarded as the center of the universe, and immovable, with the starry sphere revolving round it every twenty-four hours. All the stars move in parallel circles, and are attached to a single body, having, as their common pole, a star visible between the Bears, which never changes its place, but revolves upon itself. It seems strange that the results in this treatise should have required the genius of a Euclid to establish them.

Although a motion had been given to the Earth by Philolaus, Plato, and Hicetas, the idea had never been received by astronomers. The geocentric system, however, so universally adopted, appears to have been rejected by Aristarchus of Samos, who flourished from about 320-250 B.C. He maintained that the Sun and the fixed stars are immovable, the Earth revolving round the Sun in a circle, of which the Sun is the center. He seemed to consider the distance of the fixed stars as infinite; but Archimedes, to whom we owe our knowledge of the new system, thinks that this was not the meaning of the astronomer, and gives a different in-

terpretation of the passage. In his system, no reference is made to the planets; and though he is said have given the Earth a rotatory motion also, it is a meager though a bold anticipation of the Copernican hypothesis. Its boldness, indeed, was such that Cleanthes, the head of the Stoical school at Athens, declared it to be impious to remove from its sacred and central position "the heart of the universe."

Archimedes, so well known by his discoveries in mechanics and optics, was known also as an astronomer. He is said to have constructed an orrery in brass, which showed the revolutions of the Sun, Moon, and five planets, and the nature of eclipses. From Syracuse, it was removed by Marcellus to the Temple of Virtue, at Rome.

Sir George Lewis closes this chapter of his work with an account of the astronomy of the Alexandrine school, so nobly patronized by the Greek kings of Egypt. Treatises on astronomy were written by Aristyllus and Timocharis in the middle of the third century B.C.; and both had made observations on the fixed stars, to which Hipparchus had access. Conon of Samos, a friend of Archimedes, made astronomical observations in Italy, and formed a collection of solar eclipses observed by the Egyptians. Berenice, the Queen of Ptolemy Euergetes, on his return from his Syrian expedition, in 243 B.C., had dedicated a lock of her hair in the temple of Arsinoe-Aphrodite, at Zephyrum; but having disappeared from the temple, Conon placed it in the heavens as the constellation *Coma Berenices*.

Eratosthenes, who flourished between 276 and 196 B.C., determined the circumference of the Earth by a method truly scientific. The distance between Syene and Alexandria, in the same meridian, had been ascertained to be 5000 stadia. The zenith distance between these stations was found by Eratosthenes to be the fiftieth part of the circumference of the meridian, or $7^{\circ} 12'$; and hence the circumference of the Earth was 250,000,000 stadia, or 31,000 miles, which is nearly 700 stadia for a degree. This eminent astronomer likewise found that the diameter of the Sun was twenty-seven times greater than the diameter of the Earth; the distance of the Sun, 804,000,000 stadia, and that of the Moon, 780,000 stadia.

Apollonius of Perga, a cotemporary of Archimedes, and celebrated by his treatise

on the Conic Sections, was the first to reject the theory of revolving spheres, and to introduce that of excentrics and epicycles, in order to explain by circular movements the stations and retrogradations of the planets.

We come now to the last and most interesting chapter of Sir George Lewis's survey—namely, the scientific astronomy of the Greeks and Romans, from Hipparchus to Ptolemy. The astronomical observations of Hipparchus were made between 162 and 127 B.C., but have not been recorded in any work of his own. Our knowledge of his discoveries is derived principally from the *Almagest*, or "Mathematical System" of Ptolemy. Advancing beyond Eudoxus, he determined the positions of the stars by their right ascension and declination. He discovered the inequality of the Sun, the place of its apogee, and its mean motion. He determined also the mean motion of the Moon, of its nodes and of its apogee, the equation of the Moon's center, and the inclination of her orbit. He discovered likewise a second inequality, without being able to ascertain its law. He calculated eclipses of the Moon, and was acquainted with the obliquity of the Ecliptic. His astronomical instruments were so imperfect, that it was difficult to approximate within a degree of the truth, though his errors amount frequently only to a few minutes. His hypothesis of excentrics and epicycles, by which he succeeded, in so remarkable a manner, in resolving the unequal motions of the heavenly bodies into equable circular motions, entitle him to a high place among astronomers. One of the most valuable works of Hipparchus is his catalogue of 1080 stars, with their latitudes and longitudes. In making these observations, he discovered the precession of the equinoxes, or an apparent motion of the fixed stars round the pole of the Ecliptic. Although this motion is only fifty seconds annually, yet Hipparchus announced that it was between fifty-nine and thirty-six seconds. In estimating the labors of this astronomer, Delambre says, that when we "reflect upon the number of his works, and the mass of calculations which they imply, we must regard him as one of the most astonishing men of antiquity, and as the greatest of all in the sciences which are not purely speculative."

During the three centuries which elapsed between Hipparchus and Ptolemy, as-

tronomy made little progress. The astronomical treatises of Geminus and Cleomedes, and observations by Agrippa, Menelaus, and Theon of Smyrna, were written and made in this interval. About 105 B.C. Posidonius constructed an orrery for showing the daily motion of the Sun, Moon, and five planets. He computed also the circumference of the Earth by a method different from that of Eratosthenes, by which he found it to be 240,000,000 stadia, or 30,000 miles. He made the Sun's distance from the Earth 502,000,000 stadia, and the Sun's diameter 3,000,000 stadia; and he was the first person who recognized the relation of the tides to the motions of the Sun and Moon.

An important use of astronomy, and indeed of every branch of science, is to explain those phenomena of the material world which have a supernatural character. Solar and lunar eclipses, comets, and various atmospherical phenomena, are sufficiently rare and striking to alarm the timid and the ignorant. Sir George Lewis has given some interesting examples of the effects produced by eclipses. When Pericles was about to set sail on an expedition against the coasts of the Peloponnese, his troops and his own pilot were struck with terror by an eclipse which took place at the moment of embarkation. He instantly held up a cloak before the eyes of the pilot, and told him that the eclipse was no more a sign of calamity than the cloak—the only difference being, that the body which produced the eclipse was the larger of the two.

When the Athenians, about twenty years afterward, were about to send an expedition to Syracuse, the army, and Nicias the commander, were influenced by a lunar eclipse in preventing its departure. Although an expiration of three days was considered necessary for solar and lunar phenomena, yet Nicias made the army wait for a whole circuit of the Moon, or the thrice nine days of the diviners, till she was quite purified from her unclean embrace of the shadow of the Earth. "The moral," says our author, "which Polybius draws from this event, is the necessity of astronomical knowledge to a military commander. If Nicias, he says, had understood the true nature of an eclipse, he would have turned it to his own account; for he would have taken advantage of the fear and astonishment of

the enemy, whose ignorance of eclipses was equal to that of the Athenians, to withdraw his army and escape in safety." Columbus, more wise than the Greek commander, terrified to such a degree the Indians in Jamaica by the prediction of an eclipse, that he induced them to supply him with provisions for his crew.

In 364 B.C., when Pelopidas was about to march against Alexander of Pheræ, his army was intimidated by an eclipse of the Sun, and the expedition was discouraged by the diviners. A few volunteers and mercenaries, however, set out under Pelopidas, who lost his life in the adventure. A similar and more fortunate disregard of an eclipse of the Moon was made by Dion, in persisting in his expedition against Dionysius, in opposition to the fears of his soldiers, though with the concurrence of the diviners. An almost total eclipse of the Moon, which preceded the battle of Arbela by eleven days, would have produced a mutiny in the army of Alexander, had not the Egyptian diviners satisfied the soldiers that the Sun was the friend of the Greeks, and the Moon of the Persians, and therefore that an eclipse of the Moon forbode a defeat of the latter.* When the fleet of Agathocles was on its way to Africa, an eclipse of the Moon, which Mr. Airy makes that of the fourteenth August, 310 B.C., filled the army with consternation; but, as it had not happened before the departure of the expedition, it indicated only disaster to the Carthaginians.

The earliest authentic notice of a solar eclipse in the history of Rome, has been mentioned by Livy as having taken place 190 B.C., during the Apollinarian Games. About twenty-two years later, a lunar eclipse occurred during the campaign of Æmilius Paulus against Perseus, king of Macedonia, but of which the accounts differ. According to Levy, a tribune, Sulpicius Gallus, on the eve of the battle of Pydna, stated to the assembled soldiers that the Moon would be eclipsed on the night of the third September, from the second to the fourth hour; but that, as it was produced by natural causes, which he explained, it could not be considered a prodigy. The prophetic powers of Gallus were extolled by the Roman soldiers; while the Mace-

donian army and their diviners were so terrified by the omen, that their camp resounded with moans and shrieks till the Moon recovered her usual form. Although Gallus was able to calculate eclipses, yet Cicero thinks he had not leisure and the means of doing it, and must have wrought upon the minds of his soldiers after the eclipse had commenced.

When the Roman legions mutinied in Pannonia in 14 A.D., on the accession of Tiberius, an eclipse of the Moon terrified them to such a degree, that they strove to relieve the Moon's sufferings by the clattering of brass, and the noise of horse and trumpets. The superstition of the ancient Greeks was, that the Moon was bewitched; and it was supposed that the Thessalian women, who had the reputation of witchcraft, could draw her down from her course by magic incantations and herbs.

Notwithstanding these vulgar errors, the causes of eclipses were well known to the Greeks, as is proved by the treatises of Geminus and Cleomedes; but though Epicurus admitted that the Moon might be eclipsed in the Earth's shadow, and the Sun by the Moon, yet he held that an eclipse may have several causes—such as a partial extinction of the light of the Sun or Moon, or even by the interposition of some foreign body belonging to the Earth or to the heavens.

The calendar, being regarded as a religious concern, had been under the exclusive control of the College of Pontiffs. In order to bring the Roman year of 355 days into harmony with the Sun, an intercalation was necessary; but this was supplied by the Pontiffs, and, we are told, in such a dishonest manner, that "they falsified the time in order to favor or to spite particular magistrates or farmers of the public revenue, by unduly lengthening or shortening the term of their office or contract."

When Julius Cæsar was Pontifex Maximus, the Roman calendar was in such a state, that though January should have begun soon after the winter solstice, the errors had so accumulated as to amount to ninety days. He therefore rectified this state of matters by inserting the regular intercalary month Mercedonius, of twenty-three days, and two additional intercalary months, containing together sixty-seven days, which, added to the year of 355 days, made a transition year of

* Mr. Airy thinks that this eclipse was that of the fourteenth March, 479 B. C.—*Phil. Trans.* 1853, p. 199.

445 days. The month of January having thus regained its proper place, Cæsar ordered the solar year of $365\frac{1}{4}$ days to be adopted in future. To keep it in accordance with the seasons, he added a day to April, June, September, and November, and two days to January, Sextilis, and December, making the 355 days up to 365 days; and he provided for the quarter of a day still wanting by the intercalation of a day in every fourth year.

Although Julius Cæsar was an adept in astronomy, and is said to have written a treatise on the motions of the stars, yet, in reforming the calendar, he availed himself of the assistance of Sosigines, an astronomer of the Alexandrine school, and of a Roman clerk of the name of Flavius. Simple as is the intercalation of a day every four years, yet it was neglected, and the intercalation made only every third year. The consequence of this was, that Augustus was obliged to suspend the intercalation of three periods, or twelve years, so as to absorb the three days in advance. The difference between the Julian year of $365\frac{1}{4}$ days, and the true solar year of 365d. 5h. 48m., was still $11' 12''$; and as this had accumulated in 1581 to ten days, Pope Gregory provided that three intercalary days should be omitted every four centuries; and this is the calendar now in use.

Notwithstanding the perfection of a calendar as a measure of annual time, the sun-dial and the clepsydra, for measuring diurnal and nocturnal time, were very imperfect, and were to be found chiefly in monasteries rich enough to purchase them. In the poorer establishments they had a *significator horarum*. In order to discharge this duty properly, this marker of time was cautioned "not to listen to stories, or to hold long conversations with any one, nor to inquire what is done by persons engaged in secular pursuits. He must be always intent upon his duty, and never relax his observation of the revolving spheres, the motion of the stars, and the lapse of time. He must acquire a habit also of singing psalms, if he wishes to possess the faculty of distinguishing the hours; for, whenever the Sun or stars are obscured by clouds, the quantity of psalms which he has sung will be a sort of clock for measuring time." In other monasteries the time was measured by the diminution of a lighted *cereus*, or wax taper. Clocks driven by weights and

wheels, and striking the hours, were not introduced till the eleventh or twelfth century, and the pendulum-clock of Huygen not till the seventeenth.

No part of astronomy perplexed the early astronomers more than the place and relative position of the planets. The difference between the three superior and the three inferior planets had been noticed, and the sun was placed between them: the order being—Saturn, Jupiter, Mars, Sun, Venus, Mercury, and the Moon. After they attained to this arrangement, a new hypothesis not mentioned by Ptolemy was invented, in which Venus and Mercury are made satellites of the Sun, and move round him, while all three move round the Earth. This hypothesis must have been known early after Christ. It is found in the work of Vitruvius, in that of Martianus Capella, and in the astronomical treatise of Theon of Smyrna. It coincides nearly with the Tychoonic System of more recent times, in which the Earth is immovable in the center of the universe, with the Sun, Moon, and fixed stars revolving round it, while the five planets revolve round the Sun, the three superior ones surrounding the Earth, and the two inferior ones lying between the Earth and the Sun.

We have already had occasion to refer to Ptolemy and his great work, entitled *The Mathematical System*, or *The Almagest*. Claudius Ptolemy, who flourished between 100 and 170 A.D., was a native of Egypt, and resided at Alexandria. Having had access to the writings of Hipparchus, and being acquainted with the observations and works of the Greek and Alexandrine astronomers, he was able to enrich his *Almagest* with all the theoretical and practical information of his predecessors. In this great work, consisting of thirteen books, of which Delambre has given an abstract, occupying nearly 350 pages, he treats of the Sun and Moon; of eclipses; of the stars, their catalogues and distances; of the planets, and their retrogradations and latitude; and of the Milky-Way, and the sphere; forming almost a complete system of astronomy. He considers the Sun, Moon, and all the planets as moving round the Earth—the order of their distances being, the Moon, Mercury, Venus, the Sun, Mars, Jupiter, and Saturn. Each of the superior planets also moved upon an epicycle, whose center described round the Earth an excentric in a time

equal to the revolution of the planet. The period upon the epicycle was a solar revolution, and the planet was always in opposition to the Sun when it reached the point of the epicycle nearest the Earth. Each of the inferior planets also moved upon an epicycle, whose center described an excentric round the Earth; but the motion of this point was equal to the solar motion, and the planet described its epicycle in the time corresponding to its present revolution round the Sun, being always in conjunction with him at the lowest point of its epicycle. In this system there was no way of determining the absolute magnitude of these cycles and epicycles, so that the variations in the distances of the planets were not represented in it. Ptolemy knew very little of these variations, owing to the difficulty of measuring the diameters of the planets; but his observations on the Moon might have shown him his mistake in supposing that the perigeal diameter of the Moon in quadrature was nearly double that of her apogeal diameter in the syzgies. Every new inequality, as La Place observes, discovered by observation, loaded the system with a new epicycle, so that every step in astronomy, in place of confirming it, rendered it more and more complicated, and proved that the system was not one of nature.

The most important discovery of Ptolemy was that of the lunar inequality called the Evection. Hipparchus had observed great Anomalies in the Moon's motion in her quadratures, and Ptolemy having studied them with care, determined their amount and their law. Ptolemy confirmed the discovery of the motion of the equinoxes made by Hipparchus. By a comparison of his own with ancient observations, he proved the immobility of the stars, their latitude being nearly constant below the Ecliptic, and their motion in longitude being only a degree in eighty years, as Hipparchus had conjectured. In reference to the fixed stars, Ptolemy made a great step beyond his predecessors. Observing no parallax in the stars, and that the plane of the visible horizon cut the celestial sphere into two equal parts, he concluded that the diameter of the Earth was infinitely small in comparison with the distance of the stars. It has been generally thought that Ptolemy's Catalogue of the Stars, which forms the Seventh Book of his *Almagest*, was nothing more than that of

Hipparchus reduced to his time, by means of a precession of the equinoctial points of a degree in eighty-four years. But this is a charge without any solid foundation. Ptolemy tells us distinctly that he observed the stars contained in his Catalogue, even to those of the sixth magnitude; and it would require very strong evidence to justify so serious an imputation upon the truth and honor of so great a man. But astronomy is not the only science which owes obligations to Ptolemy. His collection of the longitudes and latitudes of all places known in his day—his treatises on music, chronology, gnomonics, and mechanics—but, above all, his optics, evince the extent of his knowledge, and place him high in the lists of astronomy and philosophy. His work on optics, which has been discovered only in our own day, is a remarkable production. A Latin translation of it was found in the Royal Library of Paris; and, though mentioned by La Place, was first made known by Humboldt. It consists of five books, the first of which is wanting, but which treated of the relation between light and vision. The other books treat of various parts of optics; but the last book is the most interesting of all. It contains physical experiments, so well made, as to have no parallel among the ancients; and he gives a theory of astronomical refractions more complete than that of any author previous to Cassini.

In his fifth chapter, "On the Astronomy of the Babylonians and Egyptians," Sir George Lewis discusses very ably the claims which have been so strongly urged by many ancient writers in favor of the high antiquity of the Babylonian and Egyptian astronomy. That the Chaldean and Egyptian priests were the originators and inventors of astronomy and geometry; that their astronomical observations include periods of hundreds of thousands, nay myriads, of years; and that the Greeks who visited Egypt derived all their knowledge—astronomical, chronological and geometrical—from the Egyptians, are opinions maintained by many ancient writers, and believed, we fear, even by some modern speculators. Sir George Lewis disposes of these extravagant opinions in the following manner:

"The true character of both of the Babylonian and Egyptian priests as astronomers seems to have been, that from an early period they had, induced by the clearness of their sky, and by their seclusion and leisure—perhaps likewise

stimulated by some religious motive—been astronomical observers. Their observations were rude, and unassisted by instruments; and were, doubtless, but irregularly and imperfectly recorded. It may be reasonably suspected that they were directed particularly to phenomena, such as eclipses, to which a superstitious interest attached. We can not, consistently with the capacity and tendencies of the Oriental mind, suppose that either of these nations ever rose to the conception of astronomy as a science; that they treated it with geometrical methods; or that they attempted to form a system of the universe founded upon an inductive, or even upon a speculative basis. The knowledge of geometry ascribed to the Egyptians seems merely to have grown out of their skill in land-measuring. All the extant evidence goes to prove that the scientific geometry of the Greeks was exclusively their own invention. It may be doubted whether any Chaldean or Egyptian priest had a mind sufficiently trained in abstract reasoning to be able to follow the demonstrations of the properties of the conic sections invented by Apollonius. They furnished to some extent the raw material of observation, but the Greeks converted these indigested facts into a system."

But though the Egyptians made little progress in scientific astronomy, yet they seem to have made some steps in reference to the calendar and the division of time. In the time of Herodotus, the Egyptian year consisted of 360 days, with five intercalary days, making a year of 365 days; but as they seem not to have disposed of the odd one fourth of a day, their year was less accurate than that of the Greek octaeteric cycle. The canicular or Sothiac period of 1461 years, commencing at the heliacal rising of the dog-star, and to which so much importance has been attached by some modern writers, is, in Sir George Lewis's opinion, an imaginary cycle never used in practice, and apparently of late origin, though founded on a simple computation, which rests exclusively upon a comparison of the year of 365½ days with that of 365 days. "What this cycle really attests," he adds, "is the retention of a civil year of 365 days, after it was known that the true year was longer by a quarter of a day."

The origin of the signs of the Zodiac has been generally ascribed to the Egyptians; but it has been satisfactorily shown by recent authors that it was introduced into Egypt by the Greeks in the Alexandrine age. "Much mystical erudition," says Sir George Lewis, "has been bestowed on the origin of the signs of the Zodiac; but by the researches of Letronne and

Ideler, the subject has been withdrawn from the transcendental region, and reduced within the bounds of general knowledge. A huge frost-work edifice of fanciful conjectures has been melted by Letronne's determination of the date of the Zodiac of Tentyra to the reign of Nero."

But whatever was the amount of the Chaldean astronomy, their astronomers practiced the art of divination. The planets and certain stars were supposed to preside over the birth of individuals, and to shed a blessed or a malignant influence over their future life. The astrology founded upon this idea was introduced into Egypt, and also taught to the Greeks, from whom it passed into Italy and Rome. The influence of the planets, etc., over individuals was extended to nations. The fortunes of Rome were calculated from its natal day on the twenty-first of April; and the nativity even of the world was brought within the range of astrology, by supposing that the sign Aries was on the meridian at the creation!

The astrology of the Chaldeans was the more readily diffused in Greece and Italy from several causes, the most powerful of which, according to Sir George Lewis, were its resemblance to the meteorological astrology of the Greeks, their belief in the conversion of the souls of men into stars, the cessation of oracles, and the belief in a tutelary genius. Both the Greeks and the Chaldeans foretold the weather from the appearance and disappearance of certain stars. The Chaldeans held that the various phenomena of the weather returned during a period of twelve solar years. "The astrology as practiced in the first centuries of the Roman Empire was," as Sir George Lewis remarks, "an intricate and abstruse system. Its professors were popularly called mathematicians, and it involved more reasoning, and demanded more constructive ingenuity, than the modern pseudo-sciences of phrenology and homeopathy."

We regret that our narrow limits will not permit us to follow our author, at any length, from his survey of the astronomy of the ancients, through his interesting and valuable chapters on the Early History and Chronology of the Egyptians and Assyrians, which occupy more than a third part of his volume. It is impossible to overestimate the importance and value of his researches on this subject, and espe-

cially at the present moment, when so many attempts have been made to unsettle the chronology of the Bible. In this discussion, Sir George commences with a period of Egyptian history of one hundred and forty-five years, (670 to 520 B.C.) from the conquest of Egypt by Cambyzes to its annexation to the Persian empire, during which the successions of its sovereigns appear to rest on historical grounds. This period includes,

Psammetichus, 670-616 B.C.	Apries, 595-570 B.C.
Neco, 616-610 "	Amasis, 570-526 "
Psammetichus, 610-595 "	Psammetichus, 526-523 "

In inquiring into the Egyptian chronology anterior to the reign of Psammetichus, Sir George Lewis draws his information from Herodotus, Plato, Manetho, Eratosthenes, and Diodorus, all of whom profess to derive their knowledge from the same source—from the sacred books, from authentic registers of the native priests, and from oral communication with the priests themselves. After giving a full account of these barren chronologies, in which only a very small number of historical notices are to be found, Sir George compares them together, in order to determine their credibility. The result of this comparison is, that the accounts are entirely discordant, and can not be reconciled by any legitimate method. He can find no good reason for preferring one to another. He does not suppose that the priests intentionally deceived the historian, or that their information was incorrectly reported or transcribed; and having, therefore, no sufficient reason for selecting any one of these systems, *he is compelled, by the laws of historical evidence, to reject them all!*

This want of credibility is specially evinced by many of the puerile facts and fabulous stories which these narratives contain. In Manetho's narrative, Menes is said to have been torn in pieces by a hippopotamus, which is a herbivorous, and not a carnivorous animal. Under Neperchore, the waters of the Nile were for eleven days mixed with honey, and there was a preternatural enlargement of the Moon! Sesostrius was five cubits high; and under Bocchoris a lamb spoke, and is said by Elican to have had eight feet and two tails!

Several writers, ancient and modern, have endeavored to give credibility to these discordant narratives, in order to palliate their extravagant character, or to

make the Egyptian chronology harmonize with that of the Old Testament. This has been done by supposing that the Egyptian year was anciently a single circuit of the Moon; and in more recent times, that it was four months. The hypothesis that it consisted only of a day is still more unfounded. Sir John Marsham reduces the Egyptian periods by arranging successive dynasties in parallel lines, and gets rid of a portion of time by making the reigns coterminous.

The method of transmuting the Egyptian chronology adopted by Baron Bunsen, in his recent work on Egypt, is avowedly the same as that which Niebuhr applied to Roman history. From the discordant versions of this history given by different classical writers, Niebuhr reconstructed a new historical narrative on an arbitrary hypothetical basis of his own, producing unsound results "by ingenious conjecture, bold and startling combinations, specious analogies," and by "the display of imposing paradox and dazzling erudition." But whatever advantages this method possessed in the transmutation of Roman antiquity, where we have at least a full and continuous narrative, it is wholly inapplicable to ancient Egyptian history, which, as we have seen, consists of little more than chronology, or a string of royal names. "In this most unattractive field of hypothetical speculation," as Sir George Lewis well remarks, "the historian is condemned to make bricks without straw. Instead of demolishing and rebuilding constitutions, instead of creating new states of society out of obscure fragments of lost writers, he is reduced to a mere arithmetical process. Accordingly, the operations of Bunsen and other modern writers upon the ancient history of Egypt, rather resemble the manipulation of the balance-sheet of an insolvent company by a dexterous accountant, (who, by transfers of capital to income, by the suppression or transposition of items, and by the alteration of bad into good debts, can convert a deficiency into a surplus,) than the conjectures of a speculative historian, who undertakes to transmit legend into history."

Sir George goes on to show that the Egyptologists set at naught the ordinary rules of evidence, and make the most unbounded demands upon our credulity. "Under their potent logic all identity disappears; every thing is subject to become any thing but itself. Successive dynasties

but cotemporary dynasties; one king becomes another king, or several other kings, or a fraction of another king; one name becomes another name; one number another number, and one place another place!"

In order to illustrate Bunsen's system of reconstruction, Sir George takes, as an example, Sesostriis, the greatest of Egyptian names, whose historical identity is dissolved and recomposed by the Egyptologists. Bunsen identifies *one portion of him* with Tosorthus, (Sesorthus of Eusebius,) the second king of the third dynasty, *who lived 1799 years later!* He then identifies *another* portion of him with Sesonchosis, a king of the twelfth dynasty; and "a third portion of Sesostriis is finally assigned to himself!"—the great sovereign being thus reconstructed from his three fragments. Lepsius, the other famous Egyptologist, differs in many respects from Bunsen—the one assigning Sesostriis to the *old*, and the other to the *new* empire, at dates differing 3793 years!—but "agrees with him in thinking that Sesostriis is not Sesostriis." "What should we think," says Sir George, "if a new school of writers on the history of France, entitling themselves Francologists, were to arise, in which one of the leading critics were to deny that Louis XIV. lived in the seventeenth century, and were to identify him with Hercules, or Romulus, or Cyrus, or Alexander the Great, or Charlemagne; while another leading critic of the same school, agreeing in the rejection of the received hypothesis, as to his being the successor of Louis XIII., were to identify him with Napoleon I., or Louis Napoleon?"

After some justly sarcastic observations on the attempt of Bunsen and Lepsius to discover the builder of the third pyramid, Sir George gives the following admirable description of an Egyptologist: "His imagination is captivated with the faculty of creating or annihilating dynasties by a stroke of his magic pen; he becomes, in the language of the ancient astrologers, a 'chronocrator.' He likewise appears to possess a sort of reflex second-sight, by which he is able to look back into the unknown past, and discern images invisible to ordinary eyes. He can evoke a great medieval period of antiquity, which has hitherto been wrapped in oblivion. If his pretensions to these gifts are admitted, and if he succeeds in imposing on the cre-

dulity of his readers, by his familiar handling of subjects remote from ordinary studies, he is regarded as a historical seer, elevated far above those obscure chroniclers who occupy themselves with digesting the occurrences of well-attested history."

Having shown the absurdity of the supposition, that the Egyptians had an ancient indigenous literature, which has perished, and to which the ancient writers had access, Sir George proceeds to examine the support which the Egyptologists draw from the hieroglyphical inscriptions on ancient Egyptian buildings, admitting that if these inscriptions were made by public authority, contained a record of cotemporary events, and were written in a language which could be read and interpreted correctly, they would furnish a solid basis of trustworthy history and chronology. None of these qualities, however, are found in the hieroglyphical inscriptions, of which we have three different accounts by authors cotemporary with the inscriptions. All these agree in describing the system as idiographic, and not as alphabetical; whereas Champollion, the great founder of the scheme of hieroglyphical interpretation employed by the Egyptologists, maintains that the hieroglyphs are symbols, not of ideas, but of alphabetic sounds. In adopting this view, therefore, Bunsen rejects the only positive evidence which we have from antiquity. As the tradition of the language is lost beyond recovery, an attempt has been made to find the ancient Egyptian, in the modern Coptic, written in Greek letters; but even Schwartz, who believes the Coptic to have been the language of the ancient Egyptian priests, admits the difficulties of such a hypothesis. "The remains of the Coptic," as Sir George observes, "do not descend beyond the third century of our era, are exclusively of an ecclesiastical character, and belong to a sphere of ideas from which the ancient religion and polity of Egypt are altogether excluded."

But whatever view we take of these points, the historical knowledge derived from hieroglyphic inscription is meager and of small amount. We have certain names of kings, but no coherent chronology, and no events in their reigns. If the interpretations which have been given of the hieroglyphical writings are correct, we may take them, as our author observes, as a sample of the rest, and may be assur-

ed that there is nothing worth knowing. "The work," he adds, "of Sir Gardner Wilkinson upon ancient Egypt, which speaks to the eye, is far more instructive than the efforts to address the mind through the restored language of the Egyptians. It may be feared that the future discoveries of the Egyptologists will be attended with results as worthless and as uncertain as those which have hitherto attended their ill-regarded and barren labors."

In order to see how far the accounts of Assyrian antiquity favor the hypothesis of the existence of scientific astronomy at Babylon, in remote times, Sir George Lewis, in his seventh chapter, gives us the early Assyrian history according to Herodotus, Ctesias, Berosus, Syncellus, and Eusebius; and he shows that there is such a discordance in their accounts, that it is impossible to institute any comparison between them. The points of agreement are so rare, that they appear to relate to different countries—"differing in the duration of the empire, the time and mode of its foundation, the time and mode of its overthrow, the names of the kings, their acts, and the duration of their reigns." Fruitless attempts have been made to harmonize these accounts, by supposing a double Assyrian empire in relation to time, and a double Assyrian empire in relation to space—one with its capital at Nineveh, and another with its capital at Babylon.

The earliest king of Assyria mentioned in the Old Testament is Phul, who lived about 772 B.C. His successors named in Scripture (though the reigns may not be continuous) were the following:

Phul.	.	.	.	.	.	772	B.C.
Tiglath Pileser,	.	.	.	.	.	741	"
Shalmaneser,	.	.	.	.	.	722	"
Sargon,	.	.	.	.	.	—	"
Sennacherib,	.	.	.	.	.	714	"
Kasrhad-don, his son,	.	.	.	.	.	—	"
Baladan, king of Babylon,*	.	.	.	.	.	700	"
Nebuchadnezzar,	.	.	.	.	.	605-56	"
Evil Merodach, his son,	.	.	.	.	.	561	"
Belshazzar, last king of Babylon, dethroned in	.	.	.	.	.	539	"

Sir George Lewis terminates this most interesting and instructive chapter by a discussion of the evidence as to the duration of mankind, furnished by the existence of great works executed in Assyria and Egypt before the time of Herodotus; and he concludes that a long period of time is not necessary to account for their

construction, and that there is sufficient reason for placing those in Egypt, and the walls of great buildings in Babylon, at a date anterior to the building of the Temple of Solomon, 1012 B.C. "The conjectural arguments," he adds, "founded upon uncertain astronomical records, by which a high antiquity is assigned to the Earth, have been rejected by Cuvier, and are now generally abandoned. Many of them have been examined in the course of the present treatise, and have been shown to be destitute of foundation."

We greatly regret that our limited space will not allow us to give more than a brief notice of Sir George Lewis's last chapter on the navigation of the Phœnicians. With the same varied learning and acute criticism which he has displayed in the previous chapters, he has shown that the Phœnicians had sailed to a very small distance beyond their settlement at Gades, and that there is no foundation for the opinion that they had navigated the shores of the Atlantic to obtain tin and amber from Northern Europe, to supply the nations at the eastern extremity of the Mediterranean. Britain was no doubt the country from which the tin sold by the Phœnicians to the Greeks was principally obtained; but, in place of its having been carried to Gades along the Atlantic coast, it was sent by the overland route across Gaul, and shipped by the Phœnicians from the mouth of the Rhone. A similar argument in favor of the distant Phœnician voyagers, derived from the early use of amber, is similarly disposed of by our author. The trade with the southern shores of the Baltic, where amber is found, in place of being carried on by Phœnician ships through the Sound, was carried on by land by native traveling merchants to the Mediterranean at Marseilles. The alleged voyage of Pytheas to the Ultima Thule, which favors the idea of a Phœnician trade by sea with the northern shores of Europe, is shown to be a fiction; and the same stigma is fixed upon the celebrated circumnavigation of Africa by Neco, as recorded by Herodotus, and as giving probability to the opinion that the Phœnicians had not only sailed to the amber shores of the Baltic, but had reached even America.

In concluding his fourth chapter on the scientific astronomy of the Greeks and Romans, Sir Georges institutes a comparison between the Geocentric and the

* A cotemporary of Hezekiah, 725-696 B.C.



Heliocentric, the Ptolemaic and Copernican, systems of the universe; and we regret to say that we can not concur in the views which he has expressed :

"The Copernican system of the universe," he observes, "and its subsequent completion by the Newtonian theory of universal gravitation, have had a purely scientific value, and have exercised scarcely any influence on the affairs of mankind. . . . The annual measure of time has received no improvement since the modern astronomical revolution. With regard to the determination of a ship's place at sea by astronomical methods, the invention of chronometers has been far more important than any improvement in astronomical theory. If the ancients had known the telescope and the clock, their scientific methods would have sufficed for nearly all practical purposes, although they might have held to the Geocentric hypothesis. Astronomy, as it has been developed by Copernicus, Kepler, and Newton, and their modern successors, has been treated by mathematical methods requiring the highest stretch of the reasoning faculty, and has furnished materials for sublime contemplation. But it is a science of pure curiosity; it is directed exclusively to the extension of knowledge, in a field which human interests can never enter. An attempt has been made by some astronomers to distinguish between the solar system and sidereal astronomy; but the distinction rests on no solid foundation. The periodic times of Uranus, the nature of Saturn's ring, and the occultations of Jupiter's satellites, are as far removed from the concerns of mankind as the heliacal rising of Sirius, or the northern position of the Great Bear. Science ought, indeed, to be pursued for its own sake; and the human mind can be worthily occupied in the acquisition of knowledge which can never lead to any practical result. But if the astronomical science of the ancients was less exact and comprehensive than that of the moderns, it had a closer bearing upon human affairs, and it nearly exhausted those departments which are useful to mankind."

In these paragraphs there are three propositions which have greatly surprised us, and which we regret chiefly on account of the influence which their general acceptance must have on the future patronage, not only of astronomy, but of every other science :

1. That the ancient astronomy had a closer bearing than the modern on human affairs, and had nearly exhausted what was useful to mankind.

2. That the modern astronomy exercises scarcely any practical influence on the affairs of mankind, and is a science of pure curiosity, in a field which human interests can never enter.

VOL. LVI.—NO.

3. That there is no solid distinction between the solar system and sidereal astronomy.

In this comparison of ancient with modern astronomy we can not concur. The only practical result of the ancient astronomy was the partial reformation of the calendar, which it took them more than two thousand years to effect; for the complete solution of the problem was not obtained till the Copernican system was announced. But what a meager boon to society was this, compared with the advantages which navigation and geography have derived from the perfection of the solar and lunar tables, and even from those of the planets. It was to promote these great practical purposes that the observatory of Greenwich was founded, and that rewards were given by the British Government to Euler and Tobias Mayer as the improvers of the lunar theory. If human interests are no longer concerned in the advancement of astronomy, how can we justify the Government for supporting with the public money that noble institution at Greenwich, which has done such valuable work, and is still doing it under Mr. Airy, one of the most gifted astronomers of any age or country? It requires some courage to say that there can be any science into which *human interests can not enter*. How often have we seen that the speculations of one age have become profoundly practical in another; and, were it otherwise with astronomy, the large sums now devoted to its advancement by every Government in the Old and New World should be transferred to those more important sciences in which human interests and affairs are supposed to be more deeply embosomed.

The allegation of our author, that there is no solid distinction between the solar system and sidereal astronomy, it is difficult to understand. Does it mean that the planets and fixed stars occupy the same region in space, or simply that stars are planets, and planets stars? The sidereal universe is placed at an immeasurable distance beyond the solar system, and no material bodies but the comets enter into the vast space which intervenes. It has been proved by the grand discoveries of the two Herschels, and others, that there are binary systems among the stars, in which one star revolves round another in determined periods, and to which the law of gravity extends; and it is not less true, from the observations of Mayer, Sir W. Herschel,

Struve, and others, that the whole solar system is in motion round some distant body, in the starry sphere. If these are truths, the sidereal system of the universe, our own planetary system which it incloses, and the great system of comets, which seems to form with both a chain of communication, are distinctly marked spheres of creation, which the highest intellects will not fail to study, and from which the warmest and most enduring interests of humanity can never be dissociated.

We have thus endeavored, at a very humble distance, to follow Sir George Lewis in his survey of the Astronomy and Chronology of the Ancients, limiting ourselves to a brief and simple abstract of the more important or popular topics to which he calls our attention. Our readers must peruse the work itself to form an idea of the stores of learning it contains, the ingenious and profound criticisms which characterize it, and the sound conclusions at which its author usually arrives. But, independently of the value of this work in its literary and scientific relations, it will be read with an additional interest as the production of one of the ablest and wisest of our modern statesmen. We have often had occasion to remark in these pages how rarely men of

profound acquirements in literature and science have been called to discharge any public functions under Government, either of a diplomatic or administrative nature; while in foreign countries, and under arbitrary governments, the same class of men have been extensively employed. We have expressed our surprise that men of theoretical and practical talent have not found their way into the House of Commons, where great questions of practical science and national interest are to be decided, and where wisdom without eloquence is one of the highest qualifications of a legislator. Sir George Cornwall Lewis is one of the few examples of a public servant yoked in the harness of the State, and successfully pursuing the higher studies of literature, politics, and philosophy. The calm dignity and unswerving consistency with which he has discharged the less responsible duties of official life, and the reputation he has acquired as a scholar and philosopher, have raised him to several of the highest positions in the Cabinet; and we have no doubt that, in the bright roll of public men, to whom Providence has committed the destinies of England, there will not be found a wiser and a safer pilot to conduct the vessel of the State through the perils which have for some time been looming in the horizon of our country.

From The Leisure Hour.

WHAT IS THE SUN MADE OF?

IF that question had been proposed to any chemist, naturalist, or astronomer, twenty years ago—ay, ten, or even less—the reply might have been: “Who knows?” If the chemist, naturalist, or astronomer, had been further questioned as to his belief whether science of any kind might not probably some day inform us of the Sun’s composition, he would have assuredly answered: “No!”

To have replied otherwise, indeed, would have seemed unsound and ignorant. With what reason could it have

been expected that any portion of the Sun’s materials would reveal their composition to mortal sense? The Moon’s composition would have seemed a far more promising subject of inquiry. Occasionally, aërolites or metallic masses fall to us from above. Whence they come is still uncertain. According to one theory, they are assumed to have originally belonged to the Moon, and to have been thence projected by volcanic eruptions, so far as to come within reach of the Earth’s attraction. Many of this class of

bodies have been collected and analyzed. Their constituents have been made known through the direct evidence of chemical analysis; therefore — only granting their lunar origin—a portion of the Moon's constituents will have been revealed. I am aware that most of these *aërolites* are now supposed to belong to fragmentary asteroids coursing in planet-like orbits through our solar system; but the very fact of their having been taken for lunar productions shows that the materials of the Moon's structure were not deemed wholly beyond our observation or comprehension. These fragments only were thought to confirm our conclusions as to the Moon's physical structure as observed by the telescope.

But as for the Sun — ninety-four millions of miles away — there seemed no hope that we should ever succeed in making a closer chemical acquaintanceship with him. This has been effected, nevertheless; and, without giving a detailed narrative of how it has been effected, we shall do well to contemplate the bonds of union and acquaintanceship — so to speak — that subsist between the Sun and ourselves.

Firstly, we maintain a bond of acquaintanceship with the Sun through the intervention of the light that emanates from him; and this we may denominate the bond of popular acquaintanceship. Between our great luminary and the philosopher there is another bond of acquaintanceship — the force of gravitation. Whereas, however, any considerable knowledge of the laws of gravitation requires close study, a considerable knowledge of the properties of light is forced upon us willingly enough, by the very construction of our eyes, and the necessities of our existence. Astronomers, long ago, reasoning upon facts to which their experiments led them, came to the conclusion that the Sun — regarded as a whole — is lighter, size for size, than the Earth — only about a fourth of the Earth's weight, indeed. To put the case in another way: assuming that the whole materials of the Sun could be intimately mingled, so as to yield an average, and, then, a piece cut out of the Sun exactly as big as our Earth, such piece would only weigh about one-fourth of that our own planet weighs. To explain in what manner the weighing of the Sun has been effected, would be altogether impossible in a short paper like this. The

weighing has been accomplished, however, and accomplished through gravitation: and this, until very recently, was all we knew in regard to the composition of the Sun. Whether it were made up of materials wholly different from those of our planet, or whether of materials identical in nature with some of those of which the Earth is composed, was beyond the scope of human ken, and seemed likely to remain so. The lighter weight of the Sun conveyed no information as to the nature of the materials. The proportional weight of the same thing varies according to the amount of heat it has. For example, metals, the very heaviest class of bodies, can by the aid of sufficient heat be driven into vapor, and vapors, as we all know, are characterized by their lightness. So, it might be that the Sun was composed of materials naturally heavy, but expanded to lightness by heat; or it again might be, that the Sun was composed of materials naturally light — light, that is to say, at ordinary temperatures.

Long ago, the opinion began to prevail that the Sun was a molten mass of fire; and a very rational opinion, to most people, this will seem to be, considering the heat and light ever evolved from the great center of our system. Then, afterward came a period when that opinion fell pretty much into the back-ground amongst philosophers. It was argued that both heat and light might be produced by an orb neither inordinately hot nor luminous — an opinion, I beg leave to remark, that could never have gained much acquiescence on the part of the unlearned; for much philosophical refinement of thought is needed to reconcile the mind to the notion of heat and light being produced by a body of itself neither hot nor luminous.

Such continued long to be the sum-total of our knowledge in regard to the Sun's composition. Doubting, speculating, we lived, but never hoping. Philosophers little knew what a glorious discovery was in store for them.

Every reader of this comprehends, I presume, what is meant by the term "prismatic spectrum," the wondrous colored image thrown upon a screen when a jet or thread of white light is analyzed or unraveled, so to speak, by means of a transparent triangular prism. Now, whatever the source of light may be, provided it evolve white light, a colored spectrum

may be produced by the agency of a triangular prism. Take heed, then, of the following fact, for upon a full comprehension of it a good deal hinges. A very unimportant fact you may be inclined to regard it, but the philosopher looks upon every fact, every revelation of truth, as having importance. The application of it may not come to-day—to-morrow; not in our time, perhaps, or it may be not for centuries after our time, but come assuredly it will; for facts are laws, and the laws of nature are impressed by God, and he does nothing in vain.

The fact to which I would direct the reader's attention, is the existence of certain black transverse lines across the solar spectrum, and only across the latter. If some sufficiently powerful light be substituted for that of the solar rays, then the particular black bands now under consideration are no longer developed. It is important, moreover, to note that the black solar spectral bands never vary—are never altered as to their relative position. This fact was noted and recorded in the annals of science; for, whenever the philosopher notes a constant occurrence, he treasures it. Not unfrequently such treasured stores of truth are pregnant with marvelous revelations, though at the time their full meaning and bearings may be unknown. So much, then, for the aforesaid black spectral bands. Premising that they were first remarked by Fraunhofer, and from that circumstance they have always been called *Fraunhofer's bands*, we will leave them for a time—their consideration to be resumed hereafter.

I must now record the evidence of certain experiments that will seem to be a long way removed from any thing connected with the solar spectrum. Nevertheless, their evidence, joined by and by to the evidence furnished by Fraunhofer's bands, will hereafter reveal to us the great secret of the Sun's composition, in part at least. Did you ever see a display of artificial fireworks, wondering in what manner the beautiful flame tints were produced? Did you ever see an old woman throw a pinch of salt upon the fire "to clear the fire," as she said, before setting on the gridiron? Did you ever push, by design or inadvertently, a bit of copper amongst burning coals or into a candle-flame? The evidence of the fireworks, the salt, and the copper wire, all goes to prove one and the same thing, namely,

that each and every metal, as a rule, burns evolving its own peculiar tint. What metals, or what composition of metals, enter into ornamental fireworks, we will not here stop to investigate, but let it be understood that each metal communicates to flame its special hue.

The second and third illustrations (both very simple) are quite sufficient for my purpose. The old woman's pinch of salt—should you witness that experiment again, if not, I beg you will yourself perform it—will be observed to tinge the fire yellow; and so, if you dip a bit of string into some salt and water, then dry it, and when dry plunge it into the flame of a candle, the flame will acquire the same peculiar tint of yellow. And so, if—cross-questioning nature still—you take some of that beautiful and very curious metal which enters into the composition of sea-salt, and which is called "sodium"—if you take some of that metal sodium, and set fire to it in a small platinum spoon, it also—the metal sodium—will be seen to burn with a flame having the same tint of yellow. Similarly, the experimenter would find—were he to take the trouble of performing the experiment—that copper, and every preparation of copper, burns with a green flame. In order to perceive the distinctive tints evolved by respective metals undergoing combustion, no apparatus is necessary; but it is only by the aid of an electric lamp and a triangular prism that the full beauty of the tint can be made manifest. Then will it be seen that sodium, when burned in a little charcoal crucible, within the electric lamp, develops, on the yellow portion of the spectrum, a still yellower band; that copper, similarly burned, produces on the green part of the spectrum a still greener band, and so on—a particular band or bands for each particular metal.

And this is curious too, namely, that if two or more metals be consumed in mixture, such as brass—a mixture of copper and zinc, for example—the prism picks out (so to speak) the rays peculiar to each metal, depositing them in the spectrum duly arranged—each of its own peculiar tint—each in its own proper locality.

So we now, by a course of experiments, have succeeded in obtaining a banded spectrum. The bands of *our* spectrum, however, are colored, whereas those of the solar spectrum—the bands of *Fraun-*

hofer—are black. “There can hardly be any connection between the two phenomena,” say you; wait awhile.

Turn back now again to our sodium. It is burning in a platinum spoon, we will suppose, evolving a vapor; that vapor is burning with the yellow light peculiar to sodium. We will now hold that sodium flame in the very track of the yellow rays that have been separated by the triangular prism from white light of the electric lamp. Watch now the result from the spectrum; a band of yellow seems to be clean cut out. There is, in place of it, *a black band*. Now, is this an arbitrary black band, or is it one to be found in the solar spectrum? Is it one of the Fraunhofer black bands? Yes, it so happens to be; and now, so far as the presence of sodium in the Sun is concerned, we have our revelation.

Assume the following case. Assume that the Sun is, as quite anciently it *was* assumed to be, a glowing ball of fire 1,384,492 times larger than our Earth—a seething mass of burning materials. Assume a blazing flame of vapor to surround him—one constituent being the vapor of sodium. These conditions granted, we at once account for the one particular black sodium line or band of the Fraunhofer scale, corresponding with sodium;

and we can account for its presence on no other assumption.

Repeating the experiment with other metals, we produce other black bands on our artificial spectrum, conformable in every respect to other Fraunhofer bands; and thus, by following out this beautiful train of reasoning, philosophers have arrived at two conclusions: first, that the Sun, as was anciently supposed, is a mass of molten fire. Second, that he is surrounded with a blazing atmosphere, in which at least exist the metals iron, magnesium, sodium, chromium, and nickel.

Nor have the experiments of Professors Bunsen and Kirschoff, of Heidelberg, (to whom these discoveries are due,) revealed a new mode of analysis for substances already known, but they have actually succeeded in discovering two new alkaline metals to which the names *caesium* and *rubidium* have been given. Indications of both these metals having been recognized in the waters of Baden and Durckheim, the Professors, after a tedious course of manipulation, succeeded in obtaining them. It now remains to be seen whether this beautiful spectral analysis may not be hereafter applied to the discovery of mineral poisons. Professors Bunsen and Kirschoff are now understood to be investigating that subject.

From the National Review.

THE COURT OF CHARLES II. OF SPAIN.*

IN giving some account of these contributions to the history of the court of the last of the lineal male descendants of the

great emperor Charles V., we think that less reserve is necessary on the score of credibility than is often the case with such authorities. The memoirs of M. de Villars, at any rate, are written in a clear and unaffected style, without much cause for offense on the score of forced and unnecessary attempts at generalizations or pointed remarks; and if the lady-writers are less free from this imputation, the letters of Madame de Villars, at any rate, have the recommendation of being evidently written on the spur of the moment, and with

* *Mémoires de la Cour d'Espagne sous le règne de Charles II.*, 1678–1682. Par le Marquis de Villars. Londres: Trübner et Cie. 1861.

Mémoires de la Cour d'Espagne. Paris. 1692.

Rélation du Voyage d'Espagne. Paris. 1691.

Lettres de Madame la Marquise de Villars, ambassadrice en Espagne dans le temps du mariage de Charles II, roi d'Espagne, avec la Princesse Marie-Louise d'Orléans, fille de Monsieur, frère unique de Louis XIV. et de Henriette-Anne d'Angleterre, sa première femme. Amsterdam. 1762.

that want of knowledge of the future, and that crudeness of opinion which adds to the value of historical authorities, though it may detract a little now and then from our estimate of individual penetration. Madame d'Aulnoy—when we have her independently—is more florid and ambitious in her style, and she labors under the drawback of retailing events and anecdotes some years after the time and away from the place. Still, with the exception of a few melo-dramatic stories, her more enlarged representation of men and things in Spain agrees substantially with the short notes of Madame de Villars, and the general body of historical evidence. Ceremonial and custom are so constant and indefeasible in Spain, that there was a uniformity even to monotony in its very disorganization. Its vices at this time were in themselves irregular enough, but they fall under such systematic rules, that they can not fail of speedily impressing themselves in their leading features on the most casual observer; and the degree to which individual character and peculiarities were subordinated to them is so remarkable, that there is less danger than in other cases of the brilliant memoir-writer being carried away by the momentary impressions of a lively imagination. Individual character was getting lost in a common degradation, just as private vices were becoming public and systematic. Men had lost the energy to be original in their sins, and still more the wish or force of character to be original in a different direction.

Pierre, Marquis de Villars, is a name well known in his own time, but less familiar to modern ears than that of his celebrated son, the Marshal, Duc de Villars. The Marquis—we avail ourselves of Mr. Stirling's brief biography—was born about the year 1618, of a family the antiquity and nobility of which is a controverted question among genealogists. He had certainly neither riches nor powerful relatives to push him forward in the profession he had chosen, that of arms, and he had to rely on a fine figure, a commanding presence, and some considerable skill in the management of the sword. When the Prince de Condé commenced the civil war of 1652, Villars was a follower of the house of Charles Emanuel of Savoy, Duc de Nemours, one of the lieutenants of the Prince. In the celebrated duel between the Duke and his brother-in-law,

the Duc de Beaufort, Villars acted as one of the seconds of the former, and, more fortunate than his principal, succeeded in killing his adversary, the Comte d'Héricourt, whom he then saw for the first time. He had of course to leave the country, and owed his return to France to the good offices of Armand de Bourbon. The Prince de Conti, who, to rid himself of the raillery of his brother Condé at his weakly constitution and ungraceful figure, had come to the conclusion of provoking the Duke of York, then an exile at Paris, into a duel. This design was discovered and prevented; but Villars, whom the Prince had attached to his person, with a view to its better accomplishment, remained in his household, and negotiated a marriage between his patron and a niece of the Cardinal Mazarin, thus gaining a footing with the powerful minister. He also served in Spain and Italy under Conti. Having thus obtained access to the great people of the French court, he soon became a decided favorite with the ladies; and among these is mentioned Madame Scarron, who afterward, as Madame de Maintenon, is said to have been of essential service to her old acquaintance. He had formed an attachment to a young lady of high birth and considerable beauty, but without fortune, Mademoiselle de Bellefonds, whom he afterward married; and during their courtship he received from a lady, who observed the lovers together, but was unacquainted with his real name, the *sobriquet* of *Orondates*, one of the handsomest of the heroes of the popular romance, the *Grand Cyrus*; and long afterward, when age had deprived him of any title to the epithet, he was still familiarly known by it. He served as aid-de-camp to the Grand Monarque in his court campaign in Flanders; but his prospects in the army came to a premature termination, owing to a quarrel between his brother-in-law, afterward Marshal de Bellefonds, and the war minister, Louvois. After acting for a time as governor of Besançon, and then of Douai, he found himself thrown again on his own private fortune, which being small, he solicited and obtained from his friend M. de Lyonne, minister for foreign affairs, some diplomatic missions to Germany and Italy after the peace of Aix-la-Chapelle in 1668. At length, in 1671, he was appointed ambassador to Spain, and after that to Turin; and in 1679, after the negotiation of the

marriage of Charles II. of Spain with Marie-Louise d'Orléans, he returned to his post at Madrid, where he remained until 1682. This is the embassy of which we have some account in the volumes before us. On his return, Villars was in 1683 created a military counselor of state, and sent as extraordinary ambassador to Denmark. In 1688 he received the decorations of the order of "St. Esprit;" and in 1692, on the marriage of Philippe, Duc de Chartres, afterward the Regent Orléans, with Mademoiselle de Blois, he was appointed a chevalier d'honneur to the Duchess. He died at Paris on the twentieth of March, 1698, after a short illness, and was buried in the church of the Carmelites in Rue St. Jacques. His widow, whose letters we have spoken of, survived him till the year 1706. It should be added, that, according to the preface supplied by the unknown writer of the manuscript copy of the memoirs of the Marquis, they were given to the Marquis de Blecourt, as instructions, on his being sent as ambassador to Spain after the Treaty of Partition.

The epoch at which the Marquis de Villars entered on his second embassy to Spain was an important one for that country. A disastrous war had been just terminated by an ignominious peace, which left the country exhausted in its material means, and bankrupt in military glory and national reputation. In the month of June, 1679, when the French ambassador reached Madrid, the responsible minister of Spain was Don Juan of Austria, whom the late king, Philip IV., had recognized as his natural son, and educated for the highest posts in the State. The earlier exploits of the Prince were creditable to his talents; but a great misadventure in Portugal, which secured the independence of that country, was seized on by his enemies (to whose neglect of supplies to the army the disaster is attributed) as a means for undermining him in the good graces of his father. The head of the party opposed to him was the Queen, Mariana of Austria, Philip's second wife. During the latter part of the reign of that sovereign, therefore, and the regency of the Queen-mother which succeeded, Don Juan was banished from court, and from all public employments. The Queen-mother, with her advisers and favorites, Father Nithard, her German confessor, and an Andalusian adventurer named Valenzuela, monopo-

lized all the powers of the State; and even after these ministers were driven from power, in consequence of the extreme unpopularity of their administration, the Queen continued to maintain herself at the helm of government, and ruled very much as she chose until the commencement of the year 1677, when a strong confederacy of nobles summoned Don Juan from his retirement in Arragon, and compelled the Queen-mother to abandon her authority and retire in her turn to seclusion and a most harassing and humiliating espionage at Toledo. Don Juan now succeeded to the government in the fullness of a popularity with all classes which had been growing up for many years. Before two years had elapsed, he had effectually dissipated all the hopes that had been entertained respecting him, and had rendered his administration as generally detested as that of his predecessor. Sensible of the precarious character of his position, he had endeavored to secure himself, not by throwing new energy and order into the management of affairs, but by banishing several powerful nobles, under pretense of their leaning to the interests of the Queen-mother. Of these the most important was the Duke de Ossuna. Another young nobleman, of some reputation, the Count de Monterey, who had been the head of the party which brought back Don Juan to power, was banished by the latter on account of his getting too much into the young King's good graces. He entirely neglected the King's education; kept him in a state of complete indolence; would not even suffer him to leave the palace unaccompanied by him; and made not the slightest attempt to initiate him into public affairs. The people, as the Ambassador observes, would have easily consoled themselves for the disgrace of the nobles, and the enslavement of the King, if the minister had found some means of relieving their own misery; but, on the contrary, it increased, and with it the taxes. Scarcity became greater; justice was as much wanting as ever, and the finances in as great disorder. No one found himself better off; many found themselves worse. The ill-feeling became general, and people began to regret the regency. But, our Ambassador continues, in Spain more than in any other place in the world, the anger of the people is impotent. This nation, so filled apparently with pride, seems to lack the heart to do

more than murmur at its calamities and those of the State. The exiled nobles were likely to be more dangerous enemies to the minister, through their numerous relations and connections, and in fact these secretly entered into correspondence with the Queen-mother, and began to plot her return to power. Libels of every sort, and a general ferment in the public mind, seemed to augur a coming storm, and the minister, filled with anxiety, but naturally irresolute, remained inactive, perceiving the machinations of his enemies in every direction, but not considering himself strong enough to assume the offensive, and feeling the ground shaking under him even in his last stronghold—the King's palace.

Charles II. of Spain—of whose declining years Lord Macaulay has drawn such a vivid and painful picture—had now attained the age of eighteen. For some years after his birth it had seemed probable that the feeble and sickly child would, by a premature death, bring the question of the succession to the throne to an immediate crisis. But he struggled on through childhood into youth, and in his sixteenth year appeared to shake off, in some measure, the symptoms of disease which had seemed to foreshadow his death. He is described, at the period of which we are now speaking, as being of a fair and delicate complexion; his forehead rather broad, his eyes fine and with much sweetness in their expression; his face very long and narrow, very thick Austrian lips, and wide mouth; his nose very aquiline, his chin sharp and turned up. He had a profusion of fair lank hair put behind his ears. He was of middle height; his body straight and slender; with small legs “almost all of a thickness.” If from this description by an eye-witness, we turn to the portrait which illustrates Mr. Stirling's volume, we shall be able to identify the lineaments, though it represents him at a more advanced age. There is the breadth of forehead, strangely contrasting with its lowness and flatness. With the exception of its great length, and the protuberance of the lips, the face is a handsome one. The artist has not given us the complete impression of the aquiline nose, but he has done justice to the eyes, and probably more than justice to the hair. But, what the eye-witness has failed to point to, the artist has unintentionally conveyed—the vacuity of the mind which should have ani-

ated these not unprepossessing outlines. The forehead, if free from decided marks of want of intelligence, is at least neutral on the question. The nose, whose contour might have imparted some impression of strength to the face, is far from being able, with the regularity of its curve, to overpower the testimony of the eyes and mouth—the former mild, somewhat sleepy, and wholly without expression; the latter roughly cut, purposeless, and devoid alike of refinement and sagacity. It is altogether a countenance a first glance at which might give an impression of physical good looks, but a second could hardly fail to leave the conviction of intellectual, if not moral deficiency. The mold of something greater and nobler was still partially preserved, though here and there defaced and broken; but the energy which should impart nervousness and character to the outlines was wholly wanting. The last of a line of princes, whose blood, originally tainted with the imbecility of Juana of Castile, and the strange and morbid fancies of her great son, had gone on degenerating, and giving more and more evident symptoms of disease, through the three successive Philips, Charles II. seemed born for the purpose of exhibiting the decay of his race in its most pitiable form, as he also inherited an empire reduced to the lowest state of prostration and misery, through the long-continued exercise of their selfish and ignorant despotism. He was the offspring of one of those marriages which for so long a time disgraced the reigning families of the Peninsula, his father and mother standing in the mutual relation of uncle and niece. The intermarriages with the kindred branch of Hapsburg, so often repeated during the century which followed the establishment of the family of Charles V. on the throne of Spain, could hardly be bettered in their results by this outrage on the laws of consanguinity. It is very possible, indeed, that a different training in childhood and youth might have checked in the heir of Charles V. the immediate growth of this mental incapacity. But neither the Queen-mother nor Don Juan seems to have attempted to rouse or enlarge the mind of their royal ward; and the latter, at any rate, seems to have been bent on narrowing it and deadening its energies still more, for the purpose of maintaining his own ascendancy, if not with the ultimate idea of himself superseding his half-brother on the throne. The unfortunate

youth can hardly have been naturally of a bad disposition, or else such a course of studied neglect and demoralization could not have failed to develop itself in some flagrant acts of wickedness. But perhaps the unquestionable mental disease which lay in his veins partook so much of the character of inaction and want of sustained interest in most objects, that many of the evils of such an ill-regulated education were guarded against by nature herself. His youthful freaks, if not particularly amiable, do not imply much more than thoughtless selfishness. Thus Madame d'Aulnoy tells the following story, which, if not true in itself, probably represents pretty well a class of incidents which were understood by courtiers and their friends to reflect the character of the young sovereign: "Some days ago," she says, "when it rained and thundered most terribly, the King commanded the Marquis de Astorga to wait for him upon the terrace-walk of the palace. The good old man said to him, smiling: 'Sire, will it be long before you come?' 'Why do you ask?' said the King. 'That your Majesty,' replied he, 'may send a coffin to put me in; for there's no likelihood that I should be able to contend with such weather as this.' 'Go! go! Marquis,' says the the King; 'I'll come to you.' The Marquis went out, and without any scruple stepped into his coach, and went directly home. Two hours afterward the King said: 'I'm certain the good man is wet to the skin; let him be called in. I've a mind to see him in such a condition.' But they told the King that he had not exposed himself at all; upon which Charles observed that 'he was not only old, but very wise!'"

He seems indeed to have been, like our own Charles II., generally good-natured, so far as ingrained selfishness would permit, and unless there were some immediate disturbing cause, but with the entire thoughtlessness of a selfish man as to the feelings of others, and with a complete disregard of them when they crossed his immediate whim—happily generally of a transient character. His daily life was dreary and monotonous enough. At home he was either entirely idle, among dwarfs and strange animals, or playing at games of hazard for the very smallest stakes, and in the dreariest way. He was minute and sedulous in the ceremonials of religion, and expecting all about him to go through the same forms.

At the proper seasons he was diligent in going from church to church, and liked particularly to make ceremonial visits to the convents, and hear the services performed there, and sit through the most formal and uninteresting interviews with the superiors. Now and then he listened patiently to the performance of long Spanish comedies. Twice a year he made the appointed state journeys to the palaces of the Escorial and Aranjuez; at the former gloomy mansion of the dead he visited the tombs of his royal ancestors, at the latter he rode out to battues of inclosed game. Sometimes he indulged in boar or wolf hunts, and probably his greatest personal achievement on record is that narrated by himself in the following brief epistle, dispatched by special courier to his young Queen, during a short absence from Madrid: "Madame, the wind is very high. I have killed six wolves!" He had, however, displayed two decided aversions—one to women in general, the other to every thing and every body French. The reason of the former is said to have been the extremely displeasing impression which he had derived from his treatment by the *gouvernante* and ladies in waiting, to the mercy of whose ceremonial tyranny he had been handed over from his birth down to an absurdly late period of his boyhood. The story is, that as a youth he would fly from the face of a woman as from the pestilence. Perhaps Don Juan built on this rooted aversion when he was compelled to entertain the idea of the marriage of the young King, and hoped that the delays thus interposed to every proposed match would end in the King remaining unmarried. The Queen-mother had entered into a marriage contract for her son with her niece, the daughter of the Emperor Leopold; but Don Juan had broken off the match, and the young princess married the Elector of Bavaria. An alliance with the royal family of France was now proposed, though by whom first it is not easy to say; and Don Juan was obliged to pretend to promote this match, while secretly raising obstacles to its realization. But if he counted on the King's repugnance to any woman, and much more to a French woman, he was grievously disappointed. No sooner had the young Prince seen the portrait of the Princess Marie-Louise of Orléans, the daughter of the King of France's brother, than he was so much more

violently in love with it; and the courtiers around him, who were opposed to Don Juan, and some of whom had seen the Princess, inflamed still further his new-born passion by dilating on her beauty and accomplishments. Before this newly-awakened torrent of love every thing gave way. In vain did Don Juan suggest impossible conditions as preliminaries to the marriage treaty; in vain did he try the counter-charm of a portrait of the Infanta of Portugal, and even dispatch an envoy to open negotiations in that quarter. The King had for once made up his mind; the nobles opposed to Don Juan saw in the match a means of undermining his power; the Spanish nation, eager to secure a successor to the throne, and mindful of the virtues of the young French wife of Philip II., entered warmly into their youthful monarch's enthusiasm; the Queen-mother applauded the match, seeming to have forgotten her own defeated project; and the Grand Monarque, Louis XIV., expressed his ready consent. The Spanish minister therefore found it best to carry out with a good grace what he could not prevent, and the marriage took place by proxy at Fontainebleau. Eight days after the arrival of the news of this event at Madrid, Don Juan of Austria expired of a fever, brought on by the ruin to himself which he saw impending. The King visited him in his last illness, and exhibited signs of great emotion, tenderly reproaching him with leaving him unsupported by his advice at such a crisis of public affairs. It is certain, at the same time, that the King had been holding secret consultations with the disaffected courtiers, whom he had compelled Don Juan to recall from exile a short time before. Probably both actions were genuine in their turn; the King longed to get rid of his arbitrary master, but when the time of release approached, became alarmed at the idea of the loss of his counsels, and remembered only how well he had saved him from the trouble of thinking! The public rejoicings for the marriage of the King were going on while the minister lay dying; and even under his windows the noise of fireworks increased the intensity of the headache with which he was oppressed.

Two days after the death of his minister, the King hastened to Toledo to see his mother, that minister's greatest enemy. They both displayed signs of the warmest mutual affection, and returned together to

the palace of the Buen-Retiro, near Madrid, where the King visited her every day, till he set off to Burgos to meet his bride. With her expected arrival every body was now occupied, and state affairs and the organization of a new cabinet were alike postponed till this event had taken place. The King's ardor rather increased than abated. If she were not arrived at Burgos when he reached that city, he declared, according to Madame de Villars, that he would carry off the archbishop of that city with him to Vittoria, or even the frontier of France, if she had advanced no farther. The young Queen traveled, according to state usage, attended by a brilliant escort of French cavaliers and dames d'honneur. Every stage of her progress was notified by dispatch to the court of Spain; and the grand major-domo of the palace, our friend the Marquis de Astorga, and the Camerera-Mayor, regulated their progress to meet her in accordance with this programme. The young Queen had exhibited no such eagerness for the match as her future husband had done. She is said to have been desirous of marrying her cousin the Dauphin, and to have replied to Louis XIV. when he told her he could have found no grander match than that with Spain for his own daughter, "Ah! sire, but you might have done better for your niece!" She was about a year younger than her husband, and seems to have possessed much of the personal attractions and the gay *insouciant* tone of character which had rendered her unfortunate mother, Henrietta of England,* the darling of the brilliant court of France. She was now to quit this joyous and congenial scene, in the midst of which she had moved the whole of her life, and to be consigned, in the very prime of youth and beauty, to the dull ceremonialism and punctilious gravity of the Spanish court. "Que c'est une belle chose de rire en Espagne!" exclaims Madame de Villars, in the exasperation of her Parisian feelings at the solemn outward demeanor which every true Spaniard thought it his or her duty to assume in the intercourse of daily life. No two nations, she tells us, could possibly more entirely differ in every thing, especially their social habits, than the French

* It is curious that Mariana, the mother of Charles II. of Spain, was the daughter of that Infanta for whose sake Charles I. of England—the grandfather of the Princess Marie-Louise of Orleans—made his adventurous journey to Spain.

and Spaniards. It was to such a sphere of life that the bright young French princess was to be transferred, with seemingly little, if any, previous tuition as to her necessary change of habits. Madame de Villars complains, more than once, in her letters, that no experienced person had been sent with the princess to her new home, who might have advised her on such points and on her conduct generally, and on whose advice she might have safely relied. Perhaps they feared to tell her too much of what was impending over her, and the less they said on the subject of her future husband, probably the better for her present passive acquiescence in the match. As long as her journey continued to lie through France, all went on much in accordance with the routine of her former life. She eat in public, she danced, she rode on horseback at her pleasure, she enjoyed the *chasse*, and she gambled with her attendants. Madame de Villars tells us that she lost, during her journey, in the last-mentioned amusement, no less than a thousand pistoles to the Prince and Princess d'Harcourt. When they had to quit the young Queen on their return to France, they had considerable doubts as to the fate of this debt of honor; but their young companion faithfully remitted the sum to them from Madrid. Shortly before the cavalcade met that of the King of Spain, one of the old *sous-gouvernantes*, who had insisted, notwithstanding her infirmities, on pursuing her appointed destination, actually expired in her litter; and so the Queen met her husband attended by a corpse! This might seem no unfit prelude to the unpleasant change in her life which occurred on her entering the territory of Spain. In a moment she found herself surrounded by persons wholly unknown to her, and to whose language she was equally a stranger, whose ceremonial attentions embarrassed her, and whose constrained and stiff manners, to use M. de Villars's expression, took away from her all that had constituted "*la douceur de sa vie*." The camerera-mayor, the Duchess de Terra-Nova, is painted in very unpleasant colors by both M. de Villars and Madame d'Aulnoy. Madame de Villars is more lenient or more cautious; she speaks of her as "*spirituelle et très-honnête*;" but in her letters, it must be remembered, (which were evidently handed about the court of France,) she endeavors to make the best of every thing; and the special

traits which she records of the Camerera-mayor's actual conduct fully support the less favorable estimate. The antecedents of the Duchess do not prepossess us in her favor. She had formerly been obliged to leave Madrid, on suspicion of having caused the death of her cousin-german, Don Carlos of Arragon, to whom belonged the duchy of Terra-Nova, and other property, which she kept him out of possession of. In Arragon, whither she retired, she formed the friendship of Don Juan, who detected her great ambition and boldness, disguised under formal and *dévoté* manners. She was supported by his influence till his death, when every one supposed that she would be ruined. But she proved herself able to hold her own. Having received from him the appointment of Camerera-mayor to the new Queen, she set out with the Marquis de Astorga, and others who had been named to their posts under the same influence, and determined, in conjunction with them, to take up such a position with her royal mistress as should safely entrench her against all her enemies. Her plan was to gain, by fair or other means, a complete ascendancy over the mind of the inexperienced girl; and with this view she exaggerated all the rigid rules of Spanish punctilio, and at once endeavored to banish from the Queen's life every thing that she had been accustomed to in France, making her thus dependent on her for the regulation of every action, and isolating her effectually from every other influence except that of the Marquis de Astorga, and her other confidants. To support this assumption of authority with the Queen, the Duchess first made herself acquainted, from the French attendants and others, with every thing which would throw light on the Queen's early life and disposition. When she had fathomed what we shall soon see was not a difficult or deep character, she insinuated to the King, to whom she paid assiduous court, that it was necessary to guard against his wife's natural French volatility and thoughtlessness, and that, to prevent evil counsels and habits from forming themselves, she could not be too closely restricted to the customary rules by which the conduct and habits of Spanish queens were regulated. She gave the King the idea that she alone, by her appreciation of the Queen's disposition and foibles, was competent to perform the necessary office of surveillance; and thus, through the in-

experience and timidity of the one, and the weakness and prejudices of the other, the Duchess found herself mistress of the situation, and able to bid defiance to any change of state ministers. Into the unsuspecting ear of the young Queen she poured—if our French authorities are to be believed—every kind of warning and insinuation against the Queen-mother and the French Ambassador, whom she represented, seemingly with justice, as entirely in the Queen-mother's interests. There had been some disagreements between Don Juan and the Marquis de Villars as to the ceremonial to be observed in their interviews; the former claiming and having exacted from some of the other ambassadors, the honors due to an Infante of Spain. Villars had also paid a visit, on his arrival, to the Queen-mother at Toledo, and had been welcomed by her partisans as a valuable ally, though he was too cautious to commit himself to their counsels. As respects the Queen-mother, however, the reports of the Camerera-mayor were calumnious and indefensible in the highest degree. So far from being hostile to her son's wife, as the Duchess pretended, on account of the abortive Austrian match, the Queen-mother, from beginning to end, displayed the warmest and most affectionate feelings toward her young daughter-in-law, and endeavored, by every means in her power, to promote her comfort and happiness in her trying position, and to gain her confidence. In this last attempt she was long unsuccessful, owing to the prejudices impressed on the young Queen's mind by the Camerera-mayor and her confederates.

From the moment of her setting foot in Spain, intriguers of all descriptions flocked around the Queen. Two of these especially deserve notice. A Theatin of Sicily, of the name of Ventimiglia, formerly a creature of Don Juan's, who had distinguished himself by his abusive sermons against the Queen-mother, now, upon the termination of his patron's career, determined, if possible, by a bold stroke, such as that of the Duchess de Terra-Nova, to secure a place for himself in the future disposition of affairs. He, like others, hoped, through the instrumentality of the young Queen, to place in power a cabinet of their own selection. Setting out, accordingly, in company with the Duke de Ossuna, Master of the Horse to the Queen, who was animated by similar motives, the Theatin made his

way to the presence of the Queen, and by his adroit and pleasing manners gained credit with her and her French attendants as a useful counselor. He also confirmed the calumnies against the Queen-mother and the French Ambassador; but he went too far in his ambitious efforts. Not content with advising who ought and who ought not to be admitted to her Majesty's confidence, he went so far as to draw up a scheme of government, which he submitted to the Prince d'Harcourt, and a new cabinet, at the head of which figured the Duke de Ossuna. He even had the audacity to draw up two more similar memoranda and submit them to the Queen, through a French gentleman in his interests. The papers were almost immediately returned to him, and he received forthwith an order from the King to quit his dominions. He obeyed, complaining bitterly of the French Ambassador, to whose influence he attributed his disgrace. The Duke de Ossuna failed in a somewhat similar manner, arrogating to himself, as Master of the Horse, functions which properly belonged to the Marquis de Astorga, as Major-domo. The latter, who, we have seen, was not deficient in spirit, complained by letter to the King; and, on the injunctions of the monarch to the Duke de Ossuna being disregarded by that nobleman, he was at length ordered to return forthwith to Madrid, and not to approach Burgos, in the neighborhood of which the marriage-ceremony was to take place.

The French Ambassador had hastened with the rest to meet the young Queen. He obtained an interview with her, and found her much out of spirits, and very uneasy at the reports poured into her ears, and at the strange and ungenial habits of life to which she had been introduced. He endeavored to suggest to her the best means of accommodating herself to her new position, and recommended her especially to cultivate the friendship and seek the advice of the Queen-mother, of whose good-will and affection for her he gave the strongest assurances. But he found that his counsels met cold acceptance, owing to the prejudices which the Duchess and her allies had already instilled into the Queen's mind. An attempt was even made by this clique to prevent him from being present at the ceremony, which took place, not at Burgos, but at Quintanapalla, a place which the Ambassador de-

scribes as the most miserable village in Castile, consisting of only nine or ten houses. Here, however, it was performed in the most paltry and mean manner. The meeting of the King and Queen had been an embarrassing one on both sides. Neither could speak a word of the other's language; and the Ambassador found his services as interpreter between them of great use. With Parisian dexterity, he improvised or invented some pretty compliments on both sides, and no doubt contributed in this manner to make the first impressions more pleasing than they otherwise would have been. The Queen, we are told, was fairly astonished at the King's dress and appearance; and the King scarcely realized his preconceptions of the beauty of his wife till she exchanged her French dress for one made in the Spanish fashion. They made a solemn entry together into Burgos; and the young Queen charmed even the grave Spaniards by her gentle and graceful manners. As our readers may be curious to know what were the relations into which the newly-married pair settled down with respect to one another, we will anticipate dates a little and follow them into their daily life at the Buen-Retiro, and afterward at Madrid. Madame de Villars must be our chief informant; for although the Camerera-mayor made an attempt to shut her out as well as her husband from all early intercourse with the Queen, on grounds of state ceremony, they both carried their point, owing to the interference of the Queen-mother and the strong wishes of the Queen herself, who longed more and more for some one French to talk over old times and old friends with, and to pour out her grievances to. This intercourse became more and more unrestrained, cordial, and frequent. The Ambassadors endeavored to draw back and limit it a little in point of frequency, but the Queen's importunity prevailed; and we thus gain a curious portrait of the young mistress of the royal palaces of Spain. The picture is of a mixed character. Nothing in itself could be less inviting than the life which she was doomed to lead. Madame de Villars, disposed as she was to see every thing which *must* be in the best possible light, repeatedly expresses her astonishment that any one could preserve either health or spirits under such a monotonous and wearing trial. As to the actual affection of the royal pair, the Ambassadors contents her-

self with saying, that the King loved her after his fashion, and she him after hers. The former consisted in a desire to lose sight of her as little as possible; to make her play at a wearisome game of hazard, at which he could not lose by any possibility more than one pistole; and to drag her forth to his dreary visits to the convents. A pleasanter mode of showing his affection—which seems to have been real, though otherwise of a strange, tiresome, uninteresting character—was to make her presents, which the Queen, Madame de Villars says, was well pleased to receive. And these, she adds, were her only consolation. Some relaxations had been introduced into the severe discipline of the Camerera-mayor, owing to the interference of the Queen-mother, who saw the unhappiness of her daughter-in-law, and told the King her health would otherwise become affected. But the King continued to display his aversion to every thing French. Madame de Villars tells us that he disliked herself less than any of the other French women about the Queen; but this, she candidly adds, was because he saw less of her. The Queen's French pets fared still worse. Madame d'Aulnoy tells us some amusing stories in illustration of this. The Queen had brought with her from France several French dogs and some parrots. The King hated both; and when he saw the former he would cry, "Off with you! off with you! French dogs!" One night a favorite spaniel of the Queen's, who slept in her bed-chamber, was missed by her. She rose and proceeded to hunt for the animal. The King, finding *her* missing, rose, in his turn, to seek her. They were both groping in the dark, and stumbling against every thing for some little time, till the King, losing all patience, called out to the Queen to know why she had got up. On learning the cause, "What!" he exclaimed, "are the King and Queen of Spain to get up for a wretched little dog?" and in his vexation he gave a kick with his foot to the little animal, which unluckily had just run against his legs, and thought of killing it. The Queen, at the cries of the animal, could not refrain from complaining gently, and returned to her bed very sad. Neither King nor Queen, however, could find the dog again, and they had to summon the *femmes de chambre* for a light. The next morning the King left the Queen early for the hunt, without a word to her. Much troubled at this, she watched at the win-

dow for his return, notwithstanding the remonstrances of the Duchess de Terra-Nova, who said it did not become a Queen of Spain to look out of the windows. When she saw the King coming, the Queen hastened to meet him, and reassuming for the moment her old pleasant *liberté française*, threw her arms around his neck. The King, in his turn, charmed for a time both out of his ill-humor and his Spanish etiquette, embraced her several times, instead of merely pressing both her arms with his hands, as was the custom in Spain. Finding him thus softened, the Queen seized the opportunity to procure from him the recall of the Duke de Ossuna to his office of Master of the Horse at the palace.

The fate of the parrots was still more tragic. They had rendered themselves peculiarly obnoxious to King and Spaniards by only speaking French: the Queen had by this time made herself mistress of some Spanish. The Camerera-mayor took matters into her own hands, and during the absence of the Queen wrung the birds' necks. The Queen, on learning what had occurred, when the Camerera-mayor came to kiss her hand, boxed her ears twice. The Camerera-mayor assembled all her kindred and friends at the palace, and demanded redress from the King for the insult offered to her. The King, unwitting of the original cause, which both parties concealed from him, exhorted the Queen to make amends to the Camerera-mayor. The Queen, like a true Frenchwoman, devised an ingenious excuse for her conduct, which implied that it was a whim occasioned by a state of things which promised an heir to the Spanish throne. The King, deluded and delighted, expressed his willingness in that case that she should cuff the Camerera-mayor as much as she liked! But Madame de Villars soon guessed, and eventually all Spain and Europe learnt, that an event so fondly desired by all Spaniards was out of the question. The King's affection, such as it was, assumed at times a troublesome form. His dislike to any French person, fostered by the Duchess de Terra-Nova, was carried to the most absurd lengths. Not content with getting rid—by rendering their life insupportable—of all the French attendants of the Queen, he was jealous of the most insignificant Frenchman who passed under her windows, and even put himself into the most violent state of excitement at a

wretched fool who begged alms of the Queen as she entered her carriage. A still greater commotion was occasioned by two gentlemen in the train of the ambassador of Holland, who chanced to make a profound reverence to the Queen as they met her and the King in the royal carriage. As they were dressed in the French fashion, and stopped on the Queen's side of the carriage, the Camerera-mayor took such umbrage at it, on the King's part, that a message was actually sent to the Ambassador that no one should place himself on the Queen's side of the carriage, or bow to her. It is amusing to find, from a story told by Madame d'Aulnoy, that the King remained altogether ignorant of what might have been a legitimate cause of jealousy: twice the Queen found in her pocket, on retiring to rest, a letter addressed: "For the Queen alone." The first time she opened it, and found it full of expressions of passionate love, and apparently from some one high at court. Puzzled how to act, afraid of a violent scene if she showed it to the King, and yet fearing it might be a snare of the Camerera-mayor, the young Queen very wisely took an opportunity of giving it to the Queen-mother, asking her advice, and begging her to keep it. The Queen-mother comforted and reassured her, promising she would take care no mischief came of the matter. On receiving, after an interval of time, a second letter, the Queen, without opening it, carried it also to the Queen-mother, who repeated her reassuring words, and afterward told the story to a Spanish lady of high rank, from whom Madame d'Aulnoy derived it, as an instance of the Queen's innocence and frank disposition. Madame de Villars, admitted to greater intimacy, gives us much the same impression of the young Queen's character. Notwithstanding her sad and monotonous life, the buoyant spirits of the French Princess rose again on the most trifling opportunity. She not only preserved her health, but grew more robust, her throat becoming rather too full for severe beauty. "It is a fine thing," exclaims Madame de Villars, "for preserving health and beauty, to be eighteen, and with a disposition that believes in the possibility of every thing which it wishes!" When alone with the Ambassador, her girlish spirits rose to the highest, and she must have presented a charming picture as she walked up and down the stately



gallery—her light graceful figure, decked with a profusion of jewels, reflected in the mirrors as she passed, and glancing in the light cast by the ranges of silver candlesticks, which were replenished at intervals with low obeisances by the little maids of honor, none of them above ten years of age—her complexion transparently fair and clear—her beautiful brown hair parted across her forehead, and falling over her shoulders behind, clasped in a heavy circlet of gems—her eyes brilliant and expressive—her mouth full of sweetness, and particularly charming when she smiled—in all the bloom of youth and beauty. Now she would play on some musical instrument, of several of which she was mistress; now she would dance to the playing of the Ambassadors. Her dancing was one of her great accomplishments. Madame de Villars once read her a passage in a letter from Madame de Sévigné, in which that lady spoke of the young Queen's pretty little feet, that made her dance so nicely and walk so gracefully. The Queen was pleased at this, but soon bethought her that there was nothing now for her poor little feet to do but to pace up and down the saloon, and carry her to bed at half-past eight in the evening. This was one of her smaller grievances, and it was a great triumph on her part when she persuaded the King to sit up till ten o'clock at night, and even to drive out at that hour in the hot summer evenings. Now, for a change, she would call upon Madame de Villars or her daughter, who sometimes accompanied her, or took her place—to join her in singing an air from the last French opera, or one of M. de Calanges' songs, duly forwarded from Paris for her recreation. Then she loved, if she could, to entice the cautious Ambassador into stories of the gayeties and doings, past and present, of the court of France; but Madame de Villars generally

changed the subject, finding it was a dangerous thing to dwell on the pleasant memories of Fontainebleau and St. Cloud. These unreserves were of course when they were alone, or could converse without being understood. The King only too frequently entered the room, when every one, according to etiquette, at once quitted it. He would then carry off the reluctant Queen to his dull game for a pistole; but she behaved admirably on all such occasions, and during all this tedium never failed in her assiduous and affectionate attentions to the King, and in her unbroken cheerfulness. The Ambassador can not too much praise her discretion in these respects. Now and then only she forgot herself for a moment, sometimes harmlessly enough. Once, at the representation of a dull Spanish comedy at the palace, sitting with the King and Queen-mother behind a screen, she suddenly called out Madame de Villars' name. That lady happened to be close at hand, and thinking herself summoned, made her appearance. The young Queen, on seeing her, burst out laughing; and the Queen-mother, as the Ambassador says, always glad to see her daughter-in-law amused, lent her countenance to the frolic. Such a bright, happy, amiable character is an agreeable interlude in the dull and miserable records of this reign. Fortunate, indeed, was it for the young Princess that she possessed this gayety and buoyancy of spirit, without those deeper feelings and aspirations which would have rendered her life insupportable, and embittered every trifling pleasure. The Ambassador, more than once, after dwelling on her charming sweetness and gentleness, ends with the words, *Et voilà tout!* But we must hurry from this "interior" of the palace, which the skillful hand of the Frenchwoman has drawn for us, to the less pleasing events of public life.

[TO BE CONCLUDED.]

KINGSLEY PERPLEXED.—A correspondent of the *Manchester Guardian* writes: "Let your readers conceive the perplexity of Professor Kingsley, at Cambridge, who has lately been informed that, by virtue of his professorship of history, he is *ex officio* ceremonial poet for the University, and must write an installation ode on the Duke of Devonshire! Now, the Duke is a very sensible and worthy noble-

man; he is, besides, a lover and follower of science, was senior (or second) wrangler, and has reflected fresh luster on the distinguished name of Cavendish by his early scientific triumphs and his continued scientific tastes and pursuits. But still, one would rather not have to write a poem upon him, and one may fairly be curious to see how Professor Kingsley will discharge the official task."

From the British Quarterly.

LIVES OF THE ENGINEERS.*

IN 1759 the Duke of Bridgewater obtained an act authorizing the formation of his projected coal-canal from Worsley to Salford, and thence to the Mersey. He at first intended to carry it down to the level of the Irwell, by a flight of locks, and up again on the other side. Subsequently the Duke obtained the advice of Brindley, who urged that the canal should be constructed on one level, and carried *over* the Irwell by a series of arches. By these means incomparably greater facilities in the management of the traffic would be secured, while the cost of making and working the locks might be set off against that of the embankment and aqueduct that would be required. Fresh powers were obtained, a detailed survey of the new line was made, various preliminary works at Worsley, sanctioned by the previous act, were actively pushed on, and at length Brindley, as his pocket-book records, "Sot out for London," on horseback.

Many difficulties had to be overcome in the accomplishment of so novel and serious an enterprise. To confine a large body of water in which ships could float within a water-tight channel along the top of an embankment and over a lofty bridge—to carry a river over a river—was a project altogether unprecedented in this country, and not likely to escape derision. The Duke was urged by his friends not to risk his money in so hazardous a speculation, and when, by Brindley's desire, another engineer was consulted as to the practicability of the enterprise, that gentleman deprecated the formation of the Barton aqueduct and embankment as reckless and vain, and concluded his report by saying: "I have often heard of castles in the air, but never before saw where any of them were to be erected." But the confidence of the Duke in his engineer was not shaken, and the work proceeded.

The Barton aqueduct is about two hundred yards long and twelve wide, the center being a bridge of three semicircular arches, the middle one of sixty-three feet span, and high enough to allow the passage of the largest barges without lowering their masts. But a chief difficulty was how to confine the water of the canal to its channel. It was supposed that it would soak through the embankment and wash it away; and the anxiety was not a little increased when it was found that the weight of the embankment pressed down and "blew up" the soft oozy stuff of Trafford Moss, on which it rested. But this was effectually overcome by "puddling," a process which Brindley on one occasion explained to a Parliamentary Committee. On being asked what was meant by the term, he directed a mass of clay to be brought into the room, and he molded it in its raw untempered state into the form of a trough, and then poured water into it, which soon ran through the bottom. He next worked up the clay with water, into a nearly semi-fluid state, made it again into a trough, and filled it with water, which it now held without a drop of leakage. "Thus it is," said Brindley, "that I form a water-tight trunk to carry water over rivers and valleys, wherever they cross the path of the canal." Puddling is usually applied in three or more strata, to a thickness of about three feet, care being taken to unite it into one mass. Over the top course a layer of common soil is usually laid. By these means the filtration of water is prevented, and the Barton canal is in this respect in as sound a state as on the day it was completed. The aqueduct has since been surpassed by vastly greater works, but it is the parent of them all.

Besides the general construction of the canal, the engineer had a multitude of other arrangements to complete for its successful working. Brindley never permitted the waters of a brook to intermix with those of the canal, except for the

* Concluded from page 331.

purpose of supply, lest floods should arise; and, accordingly, intercepting streams had to be diverted, sometimes by very ingenious arrangements. Contrivances were also made for loading and unloading; a steam-engine for draining the mine, and water-bellows for ventilating the works, were erected; and at Worsley a large basin was excavated to receive the barges and to serve as a head for the navigation. The engineer also made a subterranean canal into the workings of the mine for the distance of a mile, and this has since been extended for nearly forty miles. On the letting of the water into the canal, the nervous excitement of the hardy engineer is said to have been so great that he took to his bed, and remained there till all room for anxiety was over. The canal was long the wonder of the district, and strangers came from a distance to see "a river hung in the air," on which a horse was drawing several barges, crossing another river where ten or a dozen men were slowly dragging a single barge against the stream.

The complete success of the Worsley and Manchester Canal at once suggested its extension to the Mersey, so as to open direct communication between Manchester and its natural port of Liverpool. Between those towns there then existed only the roads and the river navigation of the Mersey and Irwell; and so bad were the roads, that even pack-horses had great difficulty in getting along, while on some parts of the river boats could proceed only at spring-tides, in great freshes, or by drawing extraordinary quantities of water from the locks above. Occasionally they were entirely stopped. A readier communication was matter of urgent importance. "Her Majesty's poor decayed town of Liverpool," as the burghesses called themselves when addressing Queen Elizabeth, and the chapman of Manchester, had risen in the world; and the situation of the one town at the mouth of a deep navigable river, and of the other amid coal and iron districts, made them mutually dependent, and had elevated them to commercial and manufacturing importance. Still, we are informed, that so late as 1750, "there was but one *gentleman's* carriage in the town of Liverpool, and that carriage was kept by a *lady*," and it was not till 1767 that a stage-coach began to run three times a week; and, by starting early in the day,

accomplished the thirty miles generally in time for supper. On one occasion, when "the coach was dining" as usual at Warrington, some of the passengers intimated to the coachmen that they had not finished their wine, and added, that they supposed he was not in a hurry. "Oh!" he replied, "I'm not partic'lar for an hour or so!"

In 1761, Brindley visited Liverpool, to make, what he would call, "an ochilor survey" for the new canal. The proprietors of the Mersey and Irwell Navigation had learned the superiority of canals, but though themselves unable to conduct the traffic, they opposed the projected extension. They began, however, by offering to reduce their rates; then proposed to confer exclusive advantages on the Duke; and these efforts failing, they employed every means to save their monopoly by preventing the passing of the bill, and were supported by the then Lord Derby. Brindley appeared in its support. It is to be regretted that no copy of his evidence has been preserved, since it was probably as interesting and characteristic as that of George Stephenson under similar circumstances. When Brindley was asked to produce a copy of a proposed bridge, he replied that he had none, but that he would illustrate by a model. He obtained a large cheese, and cutting it in two equal parts, said: "Here is my model." The two halves represented the semicircular arches, and by laying upon them a long rectangular object, the committee saw the position of the river and of the canal flowing over it. This canal was twenty-four miles in length, and crossed a heavy bog at Sale Moor, that rested on a bottom of quicksand. Brindley resolved that the canal should consist of one dead level of water nearly all the way from Manchester to the Mersey, and that it should then descend by a flight of locks. This was in strict accordance with his principles. He was accustomed to compare water in a river flowing down a declivity, to a furious giant running along and overturning every thing; "whereas," he said, "if you lay the giant flat upon his back, he loses all his force, and becomes completely passive, whatever his size may be." It is also related, that on one occasion, when urging before a committee of the House of Commons the superiority of canals to rivers, the question was put: "Pray, Mr. Brindley, what then do you

think is the use of navigable rivers?" "To make canal navigations, to be sure," was the instant reply.

The total outlay on the canal from Worsley to Manchester and the Mersey was two hundred and twenty thousand pounds. The unexpected difficulties and cost often exhausted the purse of the young nobleman, and it was only with the strictest economy that the work was completed. Though the Duke reduced his private expenses to four hundred pounds a year, and had but two horses for himself and groom, he was sometimes in the greatest strait to pay the wages of his men; he had to borrow money from his tenantry; and at one time could not get a bill for five hundred pounds cashed either in Manchester or Liverpool. In a small whitewashed public-house upon the Moss, many an evening was spent by the Duke, Mr. Gilbert, and Mr. Brindley, in contriving how the work should be carried on. One evening in particular the party was unusually dull and silent. The Duke's funds were exhausted; the canal was by no means nearly finished; his Grace's credit was at the lowest ebb, and he was at a loss what step to take next. There they sat, in the small parlor of the little public-house, smoking their pipes, with a pitcher of ale before them, melancholy and silent. At last the Duke broke the silence by asking in a querulous tone: "Well, Brindley, what's to be done now? How are we to get at the money for finishing this canal?" Brindley, after a few long puffs, answered through the smoke; "Well, Duke, I can't tell; I only know that if the money can be got, I can finish the canal, and that it will pay well." "Ay!" rejoined the Duke, "but *where* are we to get the money?" Brindley could only repeat what he had already said; and then the little party remained in moody silence for some time longer, when Brindley suddenly started up, and said: "Don't mind, Duke; don't be cast down; we are sure to succeed after all!" The party shortly after separated, the Duke going over to Worsley to bed, to revolve in his mind the best mode of raising money to complete his all-absorbing project.

The advantages secured by the canal amply rewarded the enterprise and sacrifices of the proprietor. It ultimately yielded an income of eighty thousand pounds a year; it reduced the charge for water-

carriage between Liverpool and Manchester one half; it conferred inestimable benefits on the entire community. "The history of Francis, Duke of Bridgewater," said the Earl of Ellesmere, "is engraved in intaglio on the face of the country he helped to civilize and enrich."

The Duke always took a deep interest in his canals, and it was one of his regulations that when any deficiency of supply was apprehended at the coal-yard, the poorer customers should be first served; their number was often very great, and the Duke would come and watch the busy scene. "One day, a customer of the poorer sort, having got his sack filled, looked about for some one to help it on to his back. He observed a stoutish man standing near, dressed in a spencer, with dark drab small-clothes. 'Heigh, mester!' said the man, 'come gi'e me a lift wi' this sack o' coal on to my shoulder.' Without any hesitation the person in the spencer gave the man the required 'lift,' and off he trudged with the load. Some one near, who had witnessed the transaction, ran up to the man, and asked: 'Dun yo know who's that yo've been speaking tull?' 'Naw! who is he?' 'Why it's the Duke hissen!' 'The Duke!' exclaimed the man, dropping the bag of coals from his shoulder, 'hey! what'll he do at me? maun a goo an' ax his pardon.' But the Duke had disappeared."

Other characteristic incidents are mentioned of this business-like nobleman. He was very shrewd in the management of even minor matters. He found that the workmen were irregular in returning to their labor at one o'clock, though very punctual in leaving off at noon. They excused themselves by saying that while they heard the clock plainly when it struck twelve, they did not when it struck only once. On learning this, the Duke ordered that the clock should be altered so as to be made to strike *thirteen*, and it does so to the present day. When he had to see people on business, he would go to them rather than receive them, "for," he said, "if they come to me they may stay as long as they please; if I go to them, I stay as long as I please."

It is probable that the remuneration Brindley obtained all through his early career, was not more than one third of the present wages of the skilled mechanics; and where modern engineers would receive ten guineas a day, he had two shillings.



It is said that when the Duchess of Marlborough was resisting the claims of one of her Blenheim surveyors, she told him indignantly, that "Sir Christopher Wren, while employed upon St. Paul's, was content to be dragged up to the top of the building three times a week in a basket, at the great hazard of his life, for only two hundred pounds a year." Brindley appears to have fared worse. So much for the rewards the world has too often given to its benefactors!

Meanwhile, the fame of the Duke's canal had spread over the country, and the earthenware and salt manufacturers of Staffordshire and Cheshire were anxious to open up a line of water-communication with the Mersey. The principal materials employed in the production of earthenware were brought from a distance; the flints from the south-eastern ports, and the clay from Devonshire and Cornwall; and first the sea, next the river, and then the pack-horses were the carriers. The expense was enormous, and pressed heavily on the trade, and similar burdens were shared by other manufacturers.

At this time the Potteries had a population of only about seven thousand, the villages were mean, and the houses rudely thatched. When in later years the prosperity of the district had increased, and many of the people had risen in the world, the Rev. Mr. Middleton, incumbent of Stone, thinking it well to admonish his hearers of the duty of humility, on one occasion reminded them, that after all they might be compared to so many sparrows, for they had all been hatched *under the thatch*. One of the most remarkable names connected with this region is that of Wedgewood. Josiah Wedgewood was born in humble circumstances, and might have improved them but little, had he not through disease lost his right leg. During his illness, he mused upon various plans by which to earn a living. When he recovered he made various fancy articles of potter's clay, and studied the improvement of his work as respects color, glaze, and durability. His business extended, and after thirty years he had given employment to many thousand families, and the trade would have more rapidly extended but for the inadequacy of the means of conveyance. The road through the Potteries had been already greatly improved, despite much opposition; but no sooner was a canal suggested to Josiah Wedgewood

than he urged its adoption, and took steps for the construction of the Grand Trunk Canal.

The opponents of canals in general, and of this in particular, gathered their forces. They asserted that the roads would be neglected, the breed of English horses destroyed, innkeepers be made bankrupt, pack-horses and their owners be ruined, and the coasting trade come to an end. But the bill passed. The line started from the Duke's canal, near Runcorn, passed by Northwich, Middlewich, and the salt districts, through the lofty range of Herecastle, across the Potteries to Haywood, joined the canal intended to unite with the Severn, then followed the Trent valley, and running to the north-east by Burton and Derby, there was a clear line of navigation to the Humber. By these means the ports of Liverpool, Hull and Bristol were connected.

It is said that when Brindley had some unusually difficult problems to work out, he "lay in bed," and the expression often occurs in his note-book.

"It was a great misfortune for him," says Mr. Smiles, "as it must be to every man, to have his mental operations confined exclusively within the limits of his profession. He thought and lived mechanics, and never rose above them. He found no pleasure in any thing else; amusement of every kind was distasteful to him. Shut out from the humanizing influence of books, and without any taste for the politer arts, his mind went on painfully grinding in the mill of mechanics. 'He never seemed in his element,' said his friend Bentley, 'if he was not either planning or executing some great work, or conversing with his friends upon subjects of importance.' To the last he was full of projects, and full of work; and then the wheels of life came to a sudden stop, when he could work no longer. It is related of him that, when dying, some eager canal-undertakers insisted on having an interview with him. They had encountered a serious difficulty in the course of constructing their canal, and they *must* have the advice of Mr. Brindley on the subject. They were introduced to the apartment where he lay, scarce able to gasp, yet his mind was clear. They explained their difficulty—they could not make their canal hold water. 'Then puddle it,' said the engineer. They explained that they had already done so. 'Then puddle it again and again.' This was all he could say, and it was enough."

John Smeaton was eight years younger than Brindley, and they were often professionally associated together. But the former enjoyed many advantages never possessed

by the latter. Both had great mechanical abilities, but John Smeaton had the inestimable benefits of an excellent home and education. He was born at Austhorpe Lodge, near Leeds, in 1724, his father being a respectable attorney. He early showed a love of contrivance, and his favorite playthings were models of things that would "work." He alarmed his family by being discovered in the act of fixing something like a windmill on his father's barn, and with a piece of bored pipe he fashioned a working pump. He constructed a miniature engine after merely examining a real one, and having tried its powers on the fish-ponds, he pumped them dry, to the consternation of the fish and the chagrin of his father. The latter, however, appears to have indulged the tastes of his son, and provided him with an outhouse, where he manufactured away to his heart's content, and where he made a turning-lathe, and worked in wood, ivory, and metals.

Smeaton's father intended his only son to succeed him in his profession, and the lad appears to have done his best to conform to his father's views. But his heart was set on mechanics, and he at length strongly, but respectfully, represented his feelings to Mr. Smeaton, who acceded to them, though with some natural reluctance, for at that time the profession of a civil engineer was unknown, and mechanical works were executed by millwrights at laborers' wages. Young Smeaton now entered the service of a philosophical instrument maker, and afterward began business on his own account; at the same time associating with men of education and science, and distinguishing himself by his philosophical attainments. Subsequently, he visited Holland and Belgium, and on his return home, in 1755, an opportunity presented itself of making his talents as beneficial as they became conspicuous.

About fourteen miles south-south-west of Plymouth Harbor, some long, low reefs of gneiss, jagged and black, may be seen at low water, over which the dark Atlantic billows roll and eddy. From the earliest times they have borne the name of the Eddystone Rocks. This spot had always been one of danger to the homeward bound, and if they went too far south in order to avoid it, they were in equal peril from the iron shores of the Channel Islands and France. Various

rude contrivances had been adopted to light up different points of the coast, and powers were conceded to some private parties to erect lighthouses, and to levy a toll on passing ships. The first attempt to build a lighthouse on the Eddystone was made by a Mr. Winstanley, of Littlebury, in Essex, a gentleman of much mechanical skill, and also of whimsical turn of mind. He began the work in 1696, and finished it in four years. He first drove irons into the rock, and then reared a wooden structure somewhat resembling a Chinese pagoda, with galleries and fantastic projections. The main gallery under the light was so open, that an old gentleman afterward told Mr. Smeaton it was "possible for a six-oared boat to be lifted up on a wave, and driven clear through the open gallery into the sea on the other side." The building was very deficient in the essential quality of strength; "nevertheless," as Smeaton remarked, "it was no small degree of heroic merit in Winstanley to undertake a piece of work which had before been deemed impracticable; and, by the success which attended his endeavors, to show mankind that the erection of such a building was not in itself a thing of that kind." So confident was the architect in its stability, that he is said to have expressed his desire to be in it in the fiercest storm that ever blew. Unhappily his wish was realized. On the night of the twenty-seventh November, 1703, he was in the lighthouse, when a tempest of unparalleled fury burst along the coast. The following morning not a vestige of building or builder remained!

The next architect of Eddystone was a London mercer, the son of a Cornish laborer, one of a family who were "a worthless set of ragged beggars." But John Rudyerd appears to have had an honest heart and great practical skill. Avoiding the errors of his predecessor, he made his building in the form of a cone, dovetailing the massive oak basis of the superstructure into the rock by strong iron branches, and weighting the whole down with courses of Cornish moorstone jointed together and clamped by iron. The building was an admirable piece of ship-carpentry, and it survived the storms that raged for nearly fifty years. It was destroyed by fire in 1755.

We have seen that the first designer of an Eddystone lighthouse was a country

gentleman and mercer, the second a London silk-mercier; the third was John Smeaton, a mathematical instrument maker. He resolved that the new building should be of stone, that the diameter of the base should be larger than before, and that instead of binding the blocks one to another by iron cramps, they should be dovetailed together, so as to lock one into another, and that thus their base would be rooted into the rock. All this he determined before a stone was laid, or even the site visited, since the difficulty of reaching it was great, and time precious. On the second April, 1756, he stood for the first time upon the rock, though even this was no easy matter, and repeated subsequent efforts to visit it were unsuccessful. At length he completed his measurements, returned to London, and made a complete model of the future lighthouse, which was approved by the projectors and the Admiralty.

On the third of August, 1756, the work began. Amid many interruptions and perils, the dovetail recesses were cut in the rock to receive the foundation-stones; the winter was employed on shore in dressing nearly four hundred and fifty tons of stone for the next summer's use, every course of stones involving fresh adaptations, and all the lines being laid out by Mr. Smeaton on the work-room floor. The actual erection commenced in the ensuing summer, and the first four stones were deposited by the sheers on the thirteenth June. For days together the ground-swells and heavy seas interrupted the work, but after the sixth course had been laid, the progress was much more rapid. The separate pieces having previously been hewn, fitted, and numbered in the work-yard, all confusion was avoided, and each stone was laid in its destined position, dovetailed, cemented, and wedged together, so as to bind the whole into one mass. Mr. Smeaton superintended the work, always placing himself in the post of danger, or, as he fairly called it, "of honor." On one occasion he received a dislocation of his own thumb, which had been produced by a fall on the rock, and then proceeded to fix one of the stones of the building. By the end of the season he had the gratification of standing upon the ninth completed course, and had then to leave it to the mercy of six months of wintry Atlantic storms. But when, in the following May, he was able to visit the scene of his labors, Smeaton rejoiced that

not a stone had been moved, that the entire work seemed solid as the rock on which it rested. The erection was now resumed, and carried on with few interruptions till nearly the end of September, 1758, when it had risen nearly thirty-six feet from the base, and beyond the heavy stroke of the waves. Here the apartments for the lighthouse-keepers were constructed with circular blocks of stone, twenty-six inches thick, sixteen pieces forming a circle, and all cramped and grooved together.

During the prosecution of the work many anxieties occupied the mind of the engineer, and especially during the winter. In the gray light of many a wintry morning, after a stormy night had passed, Smeaton might be seen standing on the Hoe, at Plymouth, gazing through his telescope in the direction of Eddystone. Wistfully would he sometimes look again and again, doubting whether the prophecies of those who declared that no building of stone would survive upon that rock had not been realized. But he never waited in vain; at length he would see a tall white pillar of spray shoot up into the air, telling him that his lighthouse was safe, and with his mind relieved, he would return to his work-shops. The fourth season was so stormy that the work could not be resumed till July, but every detail having been previously completed on shore, thirteen days witnessed the erection of two entire rooms; and by the seventeenth of August the forty-six courses of masonry were finished, and the last employment of the mason was to chisel the words "*Laus Deo*" upon the stone over the door of the lantern. Under the ceiling had been already cut, "Except the Lord build the house, they labor in vain that build it." A gilt ball surmounted the iron balcony and lantern, and the delicate and dangerous task of fixing the screws Smeaton performed with his own hands, standing on four boards nailed together at the height of one hundred and twenty feet above the sea. At last the work was completed; the light was kindled on the night of the sixteenth of October, 1759, and its star-like ray has for a century illumined the dark paths of those dangerous seas, and guided the fleets of nations to their desired haven. Sometimes a huge Atlantic wave will roll with tremendous force upon it, making the doors slam, the windows rattle, the building tremble to its base and

echo as with the roar of artillery, and momentarily obscuring the light by the water that dashes over the lantern; but instantly its force is spent, and the clear light beams beneficently across the troubled sea, gladdening the hearts of thousands of the homeward-bound as they hear the cry from aloft, "The Eddystone in sight!"

It has been well said by Mr. Smiles, that Smeaton was a "born mechanic—that he contrived and constructed for the pure love of it." His pursuits in his work-shop and at the desk were varied by visits to the blacksmith's, and being on familiar terms with that worthy, he would sometimes take up the tools and point out to him how a piece of work could be better done. One of his maxims, which he frequently quoted, was, "Never let a file come where a hammer will go." "You know, sir," said the son of Smeaton's blacksmith, who is still living, "workmen didn't know much about drawings at that time a-day, and so, when Mr. Smeaton wanted any queer-fangled thing making, he'd cut one piece out o' wood, and say to my father, 'Now, lad, go mak me this.' And so on for ever so many pieces; and then he'd stick all those pieces o' wood together, and say, 'Now, lad, thou know how thou made each part, go, mak it now all in a piece.' And I've heard my father say, 'at he's often been cap't to know how he could tell so soon when owt ailed it, for before ever he set his foot at t' bottom of his twisting stairs, or before my father could get sight of his face, if t' iron had been wrong, thear'd been an angry word o' some sort, but t' varry next words were, 'Why, my lad, thou s'ud a' made it so and so: now, go, mak another.'"

Smeaton carried out more engineering works than we have time to mention. He was employed on the Calder and Aire navigation, in various drainage works, in bridge-building in Scotland, in designing harbors, including that at Ramsgate, and also in various other departments of civil engineering. The maxim, Mr. Smiles remarks, which governed his life was, that "the abilities of the individual were a debt due to the common stock of public well-being." Robert Stephenson said of him: "Smeaton is the greatest philosopher in our profession this country has yet produced. His mind was as clear as crystal, and his demonstrations will be found mathematically conclusive. To this day there are no writings so valuable as his in the

highest walks of scientific engineering; and when young men ask me, as they frequently do, what they should read, I invariably say, Go to Smeaton's philosophical papers, read them, master them thoroughly, and nothing will be of greater service to you. Smeaton was indeed a very great man." "The example and precepts of Father Smeaton," said Watt, "have made us all engineers." He died in 1792.

In an old farm-house at Phantassie, in East-Lothian, John Rennie was born, on the seventh of June, 1761, afterward the architect of the three great London bridges, the engineer of the Plymouth breakwater, of the London and East-India docks, and of other works of national importance. He early betrayed great aptitude for mechanical pursuits. When about ten years old he made a fleet of miniature ships, and constructed models of a windmill, fire-engine, and pile-engine; and when only nineteen, he planned the machinery and buildings of some new mills near Dundee, and superintended their construction. Rennie's master was one Andrew Meikle, whose father was the inventor of a machine for "an artificially-created wind"—in other words, a winnowing-machine. The Scotch clergy argued that "winds were raised by God alone, and that it was irreligious for man to attempt to raise wind for himself, and by efforts of his own." One clergyman refused the communion to the raisers of "devil's wind." Andrew Meikle, the son, invented the threshing-machine, by which one per cent of all the corn threshed has been saved. Rennie's first efforts in design were so successful that before he was twenty he was fully employed as a millwright. But being ambitious of rising to a higher professional position, he now joined the University of Edinburgh; he subsequently went over the manufacturing districts of England, and visited James Watt at Birmingham.

Time passed on, and Rennie won fame and emolument in his profession. He fitted engines to the Albion mills at Blackfriars Bridge, and on the retirement of Smeaton, was engaged on canals: among others, on the Kennet and Avon, and Rochdale. He lifted the last from lock to lock over the great mountain ridge, known as the "backbone of England." In 1789 he recommended that the steam-engine of his friend Watt should be employed to perfect the drainage of the Fens. We find him now struggling with what

Mr. Carlyle would call the "Marsh jö-tuns," and he became one of the greatest of the "slayers of dragons;" this title being given in the Fens to persons who, by drainage works, removed those diseases which were typified as dragons or destroyers. Much of this work remained to be done, for, despite all that had been accomplished in those districts, a thousand acres in Blankney Fen—now a very fertile region—were let by public auction so recently as seventy years ago, on the whole of which the reserved bid was only ten pounds. An immense area of Lincolnshire, north of Boston, often lay under water for months together, and yet corn had risen to almost famine price. One of the most important of the districts which Mr. Rennie first completely drained was that known as Wildmore Fen and West Fen, consisting of forty thousand acres of land. East Fen, with its formidable chain of lakes, was next attacked, and where fish and wild fowl had reigned, the plough turned the furrow. The cost of executing this work was heavy, amounting to £580,000; but in 1814 the improved rental of the land was estimated at £110,561; and allowing interest for the capital sunk, the increased net value of the drained lands was not less than £81,000 per annum, which at thirty years' purchase gave an augmented value of nearly £2,500,000.

In the construction of his bridges, Mr. Rennie paid greater attention to a just theory than his predecessors, to whom it was often a matter of chance whether their erections would stand when the centers were removed. The marked improvements he made in his bridges over the old-fashioned steep arches which had preceded, and the substitution of an almost level roadway, appear to have excited the surprise of those who objected to innovation, and the contempt of at least one observer. When the new Musselburgh Bridge was opened, a countryman passing with his cart was asked how he liked it. "Brig!" was the reply, "its nae brig ava! ye neither ken whan ye're on't, nor whan ye're aff't!"

Among the splendid fabrics piled by this engineer were Waterloo and Southwark Bridges. Of the latter, Mr. Robert Stephenson says that, "as an example of arch construction, it stands confessedly unrivalled as regards its colossal proportions, its architectural effect, and the general simplicity and massive characters of its

details." Space forbids us to do any justice to the numerous and magnificent creations of Mr. Rennie's genius. He was engineer of the London and East-India docks; he amended the navigation of the Clyde; effected great improvements at the Grimsby docks; designed the harbor at Holyhead; constructed the Hull docks; planned the new quays and docks at Greenock and Leith; examined, reported on, and improved more harbors than the reader would have patience to read the names of, were we to write them. He perfected the diving-bell; advised the Bank of England on the manufacture of their notes; improved the methods of dredging, and making gunpowder, and ropes; urged the Admiralty to employ steam-power in the navy; erected the Bell Rock Lighthouse; and made war-docks and other works for the Government. But one of the most interesting of all his works was the construction of the Plymouth breakwater.

Plymouth had long been renowned as one of the first commercial, naval, and military stations in Great Britain. Its inner and admirable harbors of Hamoaze and Catwater communicate with the four thousand acres over which the Sound extends its waters, reaching some three miles in every direction. The Sound, however, has always been exposed to the fury of the equinoctial gales, and the shipping that sought shelter from their violence were not unfrequently driven on shore. Various plans had been proposed to mitigate this evil, and at length Mr. Rennie was requested by the Admiralty to report upon them; he did so in 1806. In its original state, the Sound could be entered by three channels—east, central, and west—separated from one another by rocks, the middle one being the most dangerous, and consequently least used. Mr. Rennie proposed that a breakwater should be stretched across this middle one—by which there would be little detriment to the navigation—while the tidal waters flowing through the other channels would deepen them. He stated that the breakwater should be made of large angular blocks of rubble, of from two to twelve tons weight, forming a mass about twenty yards broad at the base, ten at the top, and fifty-one hundred long, the two ends bending inward. The exact angle of repose which the rubble would ultimately assume would be determined by the op-

eration of the forces of nature ; "the waves," said Rennie, "were the best workmen."

In June, 1811, the requisite powers were obtained for the execution of this design. Twenty-five acres of limestone were purchased up the Catwater, the quarry was opened, railways were laid down to the wharves, barges were built to convey the stones to their future resting-place, and the lines of the breakwater were marked out by buoys. For two years the work proceeded, until portions of the ridge became visible at low water, and by March, 1814, vessels began to seek the protection which was evidently afforded. By August in the following year, 615,057 tons of stone had been deposited, and 1100 yards of the breakwater were visible above low water of spring-tides ; and so gratifying were the results obtained, that it was determined to carry the ridge twenty feet, instead of ten, above the level of low water of spring-tides, so that protection would be furnished both to large vessels and small. The success of the scheme, however, produced undue confidence ; Mr. Rennie wished that the seaward slope should be at five to one ; the authorities, from economical motives, regarded three to one as adequate. But some severe gales solved the problem, displaced the stones, threw many, of several tons weight, over the embankment into the Sound, and reduced the sea-slope to the angle indicated by Mr. Rennie. The total amount of rubble deposited to the end of 1848, when the work was considered to be completed, was 3,670,444 tons, beside 22,149 cubic yards of masonry—an amount at least equal to that contained in the great pyramid. The total cost of the work was about £1,500,000.

Rennie may be said to have "died in harness, in the height of his fame, after three-score years, forty of which had been spent in hard work. Work was with him not only a pleasure—it was almost a passion. He sometimes made business appointments at as early an hour as five in the morning, and would continue incessantly occupied until late at night. It is clear that the most vigorous constitution could not long have borne up under such a tear and wear of vital energy as this." Mr. Rennie realized a competency in his profession, though not a large fortune. He justly complained of the remuneration of only three hundred and fifty pounds

awarded him by the Kennet and Avon Canal Company for constructing their works. His charge of seven guineas for an entire day's work was objected to even by General Brownrigg, the head of the Ordnance. "Why, this will never do," said the General, looking over the bill ; "seven guineas a day ! why, it is equal to the pay of a Field-Marshal!" "Well," replied Mr. Rennie, "I am a Field-Marshal in my profession ; and if a Field-Marshal in your line had answered your purpose, I suppose you would not have sent for me." "Then you refuse to make any abatement?" "Not a penny," replied the engineer ; and the bill was paid.

"Mr. Rennie," says Mr. Smiles, "was a great and massive, yet a perfectly simple and modest man ; and though his engineering achievements may in some measure have been forgotten in the eulogies bestowed upon more recent works, they have not yet been eclipsed, nor indeed equaled ; and his London bridges—not to mention his docks, harbors, breakwater, and drainage of the Lincoln Fens—will long serve as the best exponents of his genius. The death of this eminently useful man was felt to be a national loss, and his obsequies were honored by a public funeral."

In one of the loneliest nooks of the narrow vale of the Esk, in Dumfries, on a knoll by a deep gully, worn in the hill-side, stood the cot of a herdsman and the birthplace of Thomas Telford. The farm stretched over some green hills along the valley of the Meggat, a little burn which falls into the Esk near Westerkirk. From that humble home the eye could see far up and down the winding dale, with its little glens among the hills, each with a gurgling rivulet of peat-brown water percolating through the mosses. "Not far beyond," says Mr. Smiles, "the road ceases, and above it stretch the trackless moors, the solitude of which is only broken by the wimpling sound of the burns on their way to the valley below, the hum of the bees gathering honey among the heather, the whirr of the black cock on the wing, the plaintive cry of the ewes, or the sharp bark of the shepherd's dog gathering the flock together for the fould." Thomas Telford was born in this cottage on the ninth of August, 1757, and before the year had ended he was an orphan, left

* This is not the only instance in which Mr. Smiles misplaces the adverb—that common vice of even ordinarily correct writers.

to the care of a brave and not unbefriended mother.

The life of the orphan-boy has been well compared by Mr. Smiles to the course of the little burn by which he was born: first it sprang from the nook in the vale and flowed on to Westerkirk school; then pursued its way to Langholm, thence on, like the Esk, into the wide world. A hearty, cheerful lad, he was known in his native vale as "Laughing Tam," where he tended sheep. When fifteen years of age he learned the trade of a stone-mason. During his apprenticeship, Miss Pasley, a kind elderly lady, was pleased with the ruddy-checked, merry mason's apprentice, and lent him books from her library. One of these was *Paradise Lost*, and his delight with it was beyond his powers of expression. "I read," he said, "and read, and glowred; then read, and read again." He taught himself to write, and sometimes helped his friends by penning letters for them. "Capital! capital!" said an old man once, whom he had thus assisted; "well! I say, Tam, Werricht (Wright, a lawyer or 'writer') himsel' couldna ha' written a better!"

Time passed on: he rapidly improved not only in skill in his craft, but in mental strength; he visited places of interest, sketched and composed both prose and poetry. "At length, having acquired," he says in his auto-biography, "the rudiments of my profession, I considered that my native country afforded few opportunities of exercising it to any extent, and therefore judged it advisable (like many of my countrymen) to proceed southward, where industry might find more employment, and be better remunerated. All wished him God-speed on his journey, and, as one of his neighbors remarked, 'he's gatten a good trade at his finger's ends.' He rode to London on a horse that Sir James Johnstone wished to be taken there; the better to fit him for the journey, his cousin lent him his buckskin breeches, and with a little bundle of "traps" buckled behind, he started on his way. Long after, his cousin merrily told the story of the fit-out, and always took care to add, "but Tam forgot to send me back my breeks."

Telford thus began life in mighty London, with only his clothes, his leathern apron, his mallet and chisels; but he had the skill and resolution to advance. In 1784 we find him engaged in superintending the

erection of some buildings at Portsmouth dockyard. The Eskdale mason had evidently risen. Yet he said, "he would rather have it said of him that he possessed one grain of good nature or good sense, than shine the finest puppet in Christendom." And his good feeling is well illustrated in a message to one of his correspondents: "Let my mother know that I am well, and that I will print her a letter soon;" for it was his practice to write his letters to her in printed characters, that she might more readily read them. Mr. Smiles well remarks, that as a man's

"Real disposition usually displays itself most strikingly in small matters—like light, which gleams most brightly when seen through narrow chinks—it will probably be admitted that this trait, trifling though it may appear, was truly characteristic of the simple and affectionate nature of the hero of our story. He took care also to provide more material comfort for her declining years. 'She has been a good mother to me,' he said, 'and I will try and be a good son to her.'"

Telford now became surveyor for the county of Salop, and in this capacity built a bridge across the Severn, at Montford, near Shrewsbury. He next obtained the appointment of engineer to the Ellesmere Canal Company, at a salary of five hundred pounds a year. This canal consisted of a line from the Dee, with branches in different directions, altogether about one hundred and twelve miles. So changed had public opinion become on the merits of canals since the Duke's labors, that at the first meeting of the Ellesmere projectors, four times the required money was subscribed.

In the construction of this canal very serious natural difficulties had to be overcome, especially in passing through the rugged hill country between the rivers Dee and Ceriog. In order to surmount them, Telford designed two magnificent aqueducts, one across the vale near Chirk, and it is one of the "boldest efforts of human invention in modern times." It consists of ten arches of forty feet span, and the canal is carried by it seventy feet above the level of the river beneath. The other, called Pont-Cysylltau, was spoken of by Sir Walter Scott to Southey as "the most impressive work of art he had ever seen." It crosses the Dee in the vale of Llangollen, and rises one hundred and twenty-seven feet above the lowest part of the valley. Upon the top of the masonry is a

cast-iron trough for the canal, with its towing-path and side-rails all bolted together. The total cost of this part of the canal was forty-seven thousand and eighteen pounds, and it occupied nearly eight years in construction.

"Thus," says Telford, "has been added a striking feature to the beautiful vale of Llangollen, where formerly was the fastness of Owen Glendower, but which, now cleared of its entangled woods, contains a useful line of intercourse between England and Ireland; and the water drawn from the once-sacred Devon furnishes the means of distributing prosperity over the adjacent land of the Saxons."

The proximity of Shrewsbury to the iron and coal districts naturally directed Telford's attention to the employment of cast-iron in bridge-building. Of course, there were those who objected, as there are always objectors to every thing; and when Mr. Wilkinson, an iron-master, insisted on an iron bridge at Coalbrookdale, they said he was "iron-mad." During the time Telford held the office of county surveyor for Salop, he erected no fewer than forty-two bridges, five of which were iron; and so emboldened was he by his success, that in 1801, when it was found necessary to rebuild Old London Bridge, he designed a new cast-iron one of a single arch, of six hundred feet span, with a clear headway of sixty-five feet above high water. Though it would have contained sixty-five hundred tons of iron, and cost two hundred and sixty-two thousand two hundred and eighty-nine pounds, he declared, that if provided with ways and means, and allowed "elbow-room, he saw his way as plainly as mending the brig at the auld burn." The plan "got into mighty favor with the royal folks," and it was generally conceded by competent men that the project was practicable, and preliminary works were actually begun; it was abandoned more especially because of the extensive inclined planes which would be necessary on either shore, and which would involve great cost and depreciation of property.

Mr. Telford also carried out a series of improvements for the drainage of Lincolnshire. In one of these was a district of nearly one hundred thousand acres of fertile land, which had formerly been very ineffectually cleared of its surplus water by windmills and steam-engines. So re-

markable was the efficiency of the outfall he constructed, that in a few hours the lowering of the waters was felt throughout the whole of the Fen level. The stagnant drains began actually to flow, and, at a place near Peterborough, some fifteen miles from the sea, the intelligence was whispered to the congregation at church—for it was Sunday morning—that "the waters were running," and congregation and minister hurried forth to see the great sight.

Though fully engaged in great works, Telford did not make the enormous fortune of a successful engineer of our day. He resided so long at the Salopian Coffee-house—now the Ship Hotel—at Charing Cross, that the successive landlords came to regard him as a fixture, and bought and sold him with the good-will of the business. When at length he resolved to have a house of his own, and gave notice of his intention to the landlord, that worthy looked aghast. "What! leave the house?" said he; "why, sir, I have just paid seven hundred and fifty pounds for you." Nevertheless, he removed to Abingdon street, where Labelye, the engineer of Westminster Bridge, had lived, and there remained till he left it at last for Westminster Abbey.

One of the most remarkable circumstances that strike the mind in the review of this subject, is the extreme modernness of English engineering. It is not very long since this country merely grew the raw material for foreign artisans to manufacture; and our efforts in science and construction were regarded with contempt. Although we were islanders, we had scarcely any navy; and the Dutch caught our fish in our seas, and sold them to us in our markets. "You English," said the Dutch fishermen, "we will make you glad to wear our old shoes." Till nearly the close of the last century, our only fishing was carried on from little cobbles, close in shore. None of our great natural harbors had a single pier until a recent date, and the smaller ports were in constant danger of being choked up by shingle. Our lighthouses also are amongst the triumphs of modern engineering. The means of crossing our rivers were so inadequate, that accidents were of constant occurrence; and Gilpin graphically describes the perils of a voyage across the Bristol Channel in 1770. Even a British Admiral who arrived at one of these far-

ries, and intended to cross, having watched the boat work over from the other side, declared that he dared not trust himself to the seamanship of such fellows as managed her, turned his horse's head, and rode some fifty miles round by Gloucester. At the time when Holland had a magnificent system of water-communication, and when France, Germany, and Russia had important lines of inland navigation, England had about the worst roads in Europe, and not a single canal cut. The reply of the man with a wooden leg, who was offered a lift upon a stage-coach, would have been appropriate to almost any part of the land till a comparatively recent period: "No, thank'ee, I can't wait; I'm in a hurry." Road-work, as a profession, was unknown till the time of Metcalf, and Mr. De Quincey mentions a case, even in the present century, where a post-chaise of the common narrow dimensions was obliged to retrace its route for fourteen miles, on coming to a bridge in Cumberland that was too narrow by three or four inches to allow it to pass. "Those who are born to modern traveling," said Lord Cockburn, "can scarcely be made to understand how the previous age got on." Our first lessons in manufactures were taught us by foreigners: French and Flemish refugees instructed us in cloth, silk, and lace work; the Dutch brothers, Elers, began the art of pottery; Spillman, a German, erected a paper-manufacturing mill; and Booman, a Dutchman, brought the first coach into England. Our earliest ships were built by Danes or Genoese; the Dutch made our wind and water-mills, and pumps, dug our great works of drainage, and repaired our river banks; and the art of bridge-building had sunk so low in England, that in the middle of the last century we were under the necessity of employing the Swiss engineer, Labelye, to erect Westminster Bridge. Hence it comes to pass that when Mr. Smiles sits down to write the history of English engineering, his subject is nearly all included in a hundred years. Vermuyden came to England in 1621, but Metcalf was not born till 1717, Edwards in 1719, Brindley in 1716, Smeaton in 1724, Rennie in 1761, and Telford in 1757; and of course they did not accomplish their great engineering works till years had matured their minds. Surrounded, as we are in these days, by monuments of engineering skill, erected at boundless cost, with admirable roads

running in all directions, and crossing rivers at convenient distances, by solid and handsome bridges; with a system of canal navigation that has, we believe, left no place in England south of Durham more than fifteen miles from water-communication; with railways to every town of importance; with harbors and docks to welcome, and breakwaters to shelter, and lighthouses to warn our ships around the coast, and all these having become the most commonplace facts, we almost fancy that they are as old as they are familiar, and can hardly imagine that they are nearly all the creation of a century. We look back across the thousands of years through which the earth has stood; we think of the twenty centuries that have elapsed since the history of our isle and our fathers can be traced, and then are amazed to learn that almost all these great products of engineering skill, which have become indispensable to our comfort, and, as we almost fancy, to our existence, are the creation of the last hundred years. No wonder Mr. Smiles should remark, that "it may possibly excite the reader's surprise to learn how very modern England is in all that relates to skilled industry, which appears to have been among the very youngest growths of our national life."

But the recency of these works renders their rapid increase only the more remarkable, and should make us more thankful that we are permitted to enjoy them. For the advantages thus secured have extended far beyond the districts immediately concerned: they have enriched the country at large. A humble Fen poet of the last century quaintly predicted some of the moral results which would arise from the reclamation of land in those regions:

"With a change of elements, suddenly,
There shall a change of men and manners be;
Hearts thick and tough as hides shall feel remorse,
And souls of sedge shall understand discourse;
New hands shall learn to work, forget to steal;
New legs shall go to church, new knees to kneel."

The prophecy has been fulfilled. "The barbarous race of Fenmen has disappeared before the skill of the engineer. As the land has been drained, the half-starved fowlers and fen-roamers have subsided into the ranks of steady industry; become farmers, traders, and laborers. The plow

has passed over the bed of Holland Fen, and the agriculturist reaps his increase more than a hundredfold. Wide watery wastes, formerly abounding in fish, are now covered with waving crops of corn every summer. Sheep graze on the dry bottom of Whittlesea Mere, and kine low where not many years since the silence of the waste was only disturbed by the croaking of frogs and the screaming of wild fowl. All this has been the result of the science of the engineer, the enterprise of the landowner, and the industry of our peaceful army of skilled laborers."

Thus it has been with our inland navigation. The first boat-load of coals passed over the Barton aqueduct on the seventeenth of July, 1761—a hundred years ago. But the effects of the construction of the Bridgewater Canals were not restricted to that locality, or even to the towns and trade of Manchester and Liverpool. Their introduction to the Pottery districts accomplished a revolution. They soon carried 50,000 or 60,000 tons of clay and flints into Staffordshire every year, and the total outward and inward tonnage is now upward of 300,000 tons. Even during the interval between two visits paid by Wesley, he saw a marvelous improvement: "I returned to Burslem; how is the whole face of the country changed in about twenty years! since which inhabitants have continually flowed in from every side. Hence, the wilderness is literally become a fruitful field. Houses, villages, towns, have sprung up, and the country is not more improved than the people."

Similar influences spread over the land. A new impulse was given to the activities and hopes of the people generally. Other towns sought similar advantages; extensive manufactories sprang up or enormously increased in the Potteries, in Birmingham, Wolverhampton, and around; agriculture was benefited instead of being injured, as some had anticipated; the augmented inland navigation promoted both the coast and foreign shipping trade, so that in the thirty years that followed the opening of the first canal—during which the main canals had united the inland towns with the seaports—the tonnage of English ships increased three-fold, and the number of sailors had doubled. Since the Bridgewater Canal has been opened, the country has been traversed by 2600 miles of canal in England, 276 miles in Ire-

land, and 225 in Scotland—3100 miles in all—at a cost of about £50,000,000. "At the beginning of the present century," says Dr. Aiken, writing in 1795, "it was thought a most arduous task to make a high-road practicable for carriages over the hills and woods which separate Yorkshire from Lancashire, and now they are pierced through by three navigable canals."

Nor has the value of our canals been diminished by the subsequent introduction of railways. It was predicted that within twelve months of the opening of the Liverpool and Manchester line, the Bridgewater Canal would be closed and would be filled with rushes; but these anticipations have been falsified. Thus, in 1835, before the opening of the London and Birmingham line, the through tonnage on the Grand Junction Canal was 310,475 tons; and in 1845, after the railway had been opened for ten years, the tonnage carried on it had increased to 480,626. Not less than 20,000,000 tons of traffic are estimated to be conveyed annually upon the canals of England alone, and the amount steadily increases.

Similar results accrued in Scotland. So recently as 1761, the Lothians of Scotland, now perhaps the finest agricultural district in the world, had but here and there an inclosed patch of ill-cultivated ground, while the remainder was moor-land and bogs, on which hardly black cattle picked up a poor subsistence; while not a blade of wheat was grown north of the Lothians. People flocked from Edinburgh to see the novel spectacle of a field of that grain in their own neighborhood. Loads even of manure and peat were carried on horseback, or by the farmer or his wife on their backs; and the Edinburgh market was overstocked by the meat of ten wethers. The physical condition of the people was necessarily miserable. "The entire country," says one writer, "was little better than a barren waste." There were hardly any roads; in wet weather the tracks became mere sloughs, and the trade between towns was conducted by "cadgers," who took their goods on horses' backs. The first vehicle that plied between Edinburgh and Glasgow was not started till 1794, and it performed the forty-four miles in two days. "There was no mail-coach north of Aberdeen," says Lord Cockburn, "till, I think, after the battle of Waterloo."

In 1802, the Government requested Mr.

Telford to make surveys of Scotland, and report on the means of improving the bridges and roads; and he stated, in detail, the wretched condition of the country, and the means necessary for its amelioration. In the following year, a series of practical improvements was commenced, which led to the construction of 920 miles of roads and 1,200 bridges throughout the Highlands—half at the cost of the Government, and half to be defrayed by local assessment. The impulse thus given led to the formation of numberless county roads, the landowners of Sutherland alone making 300 miles at their own cost.

The effects of these improvements were immediate. Agriculture was developed. Instead of manure being carried on women's backs, it was conveyed in carts, for the roads were practicable. Cottages took the place of mud-biggins; the dunghill was put outside the house; tartan tatters were exchanged for the woollens of Glasgow and Manchester. The plow superseded the crooked sticks, headed with iron, that had been employed; improved tools were introduced; wheelwrights, cartwrights, and skilled artisans came into existence; trade flourished in new directions; illicit distillation gave way to honest callings; indolence was exchanged for industry; and the moral habits of the working classes were ameliorated. Referring to the beneficial results thus produced, Mr. Telford said: "I consider these improvements among the greatest blessings ever conferred on any country. About £20,000 has been granted in fifteen years. It has been the means of advancing the country at least a century." Yet it was not till the beginning of the present century that Telford made his survey.

Similar advantages were secured, by the same means, for Wales. As an illustration of the state of the roads, we may mention that, so late as 1803, when the late Lord Sudeley took home his bride from the neighborhood of Welshpool, only thirteen miles distant, their carriage stuck in a

quagmire, and they had to proceed on foot. In 1808, the post-office authorities wished to put on a mail-coach between Shrewsbury and Holyhead; but it was found that the roads were dangerous even for a riding post, the legs of three horses having been broken in a week. The badness of the ways kept the people poor, and the poverty of the people prevented their providing roads. At length, in 1815, a commission was appointed to make a new Shrewsbury and Holyhead turnpike, and no pains were spared to render it as perfect as possible; and from that time the physical well-being of the principality has been rapidly advancing. But we must hasten to a conclusion.

Such are the men and things with which Mr. Smiles deals. By his narrative, he has better instructed us in our obligations to our benefactors. The whole theme is full of interest to all orders of mind. And in using his materials, Mr. Smiles has labored to make his work as complete in every respect as possible; and in an interesting style, he tells us a multitude of facts we are glad to hear. He has availed himself of many original resources; the life of Brindley has been derived from the family papers and from Brindley's pocket memorandum-books; the materials for the biography of Rennie were chiefly obtained from Sir John; the life of Telford has been compiled from a large collection of that engineer's letters to his friends in Eskdale, and the author mentions that he has had rather to compress than to expand the materials at his disposal. He has been efficiently supported by his artist. If the birthplace of one of the heroes of this story is named, we have the exact region indicated by an extract from the Ordnance map, and the home scenes and engineering works are depicted in excellent and very numerous illustrations. Author, artist, engraver, printer, and even paper-maker have evidently done their best to instruct and gratify the reader.

From McMillan's Magazine.

ELECTRICITY AT WORK.

BY DR. T. L. PHIPSON, F.C.S. LOND., MEMBER OF THE CHEMICAL SOCIETY OF PARIS, ETC.

Six hundred years before the Christian era, Thales accidentally observed that when a piece of yellow amber was rubbed "it became," to use his own language, "possessed of heat and life, and attracted pieces of straw, as the loadstone attracts iron." That was all the ancients knew concerning electricity. They did not observe, or rather they made no experiments. No one ever dreamt of rubbing other substances than amber, or it would have been discovered that the latter is by no means singular in this respect.

In this obscure state did the nascent science of electricity remain, until the time when Dr. Gilbert, medical adviser to Queen Elizabeth, discovered that the attractive property observed by Thales could be communicated to other bodies besides amber, and established a number of new and important facts by a series of careful experiments. But Dr. Gilbert, like most men of genius, lived before his time; his wonderful work, *De Magnete*, was enjoyed only by the select few, nor did it create any sensation till after the publication, in 1671, of Otto de Guericke's work, *Experimenta Magdeburgica*. Then, indeed, was the science of electricity born. The learned burgomaster of Magdeburg, the inventor of the air-pump, also invented the first electric machine, in the shape of a globe of sulphur, about the size of a child's head, mounted upon a stand, and which rubbed, whilst revolving, against the hands of the experimenter.

In 1727, an English philosopher, Grey, found that the electricity produced by rubbing glass can be communicated by contact to other bodies, such as cork, wire, etc., though the latter do not become electric by being rubbed. The machine invented by Otto de Guericke gave small sparks visible in the dark. Later, in 1743, Winckler of Leipzig was experi-

menting with a similar machine, in which he had replaced the globe of sulphur by a glass globe, which rubbed against an elastic cushion; and, in January, 1744, at the first meeting of the Academy of Sciences of Berlin, in presence of the Court, the sparks from this machine were, to the astonishment of all present, made to inflame a quantity of ether in a glass cup. "Thus," says Professor Dove, "the light that was kindled in Magdeburg determined combustion for the first time, seventy-three years later, and that in the town of Berlin."

Experiments now multiplied unceasingly, and it would require volumes to enumerate even the more important of them. Minerals, plants, animals, man himself—every thing was submitted to the action of this subtle "fluid," as it was called; and it was in attempting to electrify the liquids, mercury and water, that the celebrated Leyden jar and other *condensers* of electricity were discovered. Hence arose electric batteries and their wonderful results. Metals were fused and volatilized, animals and plants killed, the nature of lightning discovered, etc.

Already, in these earlier periods of the science, the experiments of Benjamin Franklin, Winckler, and Nollet, had placed beyond doubt the true nature of the lightning flash; and Franklin showed us how we might avoid its terrible effects, by means of the iron rods now called "lightning-conductors." At the same time, a French physicist, Dalibard, desiring to verify Franklin's opinion, actually made the experiment at Marley, in 1752. Franklin, who had recommended this experiment to his fellow-laborer in Europe, because he could not find means of accomplishing it in America, did not, however, wait to hear the result. In 1753, he took his son into a field, as a storm was approaching, and he flew a kite,

to which he had previously affixed a metallic point. At first he got no results; but, when the rain began, the string becoming wet, and consequently a better conductor of electricity, he obtained small sparks upon a key, to his inexpressible joy. But had Franklin used, as a string for his kite, a thin wire of metal, or introduced such a good conductor into the string, it is probable that both he and his son would have paid with their lives the expense of this dangerous experiment. Such a death, indeed, happened to Richmann, of St. Petersburg, whilst experimenting on atmospheric electricity by means of a long iron rod. But, "no risk, no gain," as the saying goes; and from these observations arose the useful application of lightning-conductors, which of late years have been brought to their greatest degree of perfection for ships by Sir W. Snow Harris, of Plymouth. When a silken string that has been gilt is submitted to an electric discharge, the whole of the gold is volatilized as a violet-colored vapor, but the silk remains unhurt. So, in Sir Snow Harris's principle of lightning-conductors, he puts into communication, by copper conductors, all the metallic elements of the ship, so that, when a discharge occurs upon a vessel thus protected, the electric vibration is dispersed over a large space at once, and its explosive power counteracted. Experience has taught us, indeed, that a single iron rod, in such circumstances, can have but little power in presence of the electricity accumulated in some hundred acres of clouds.

It appears to me—and I believe François Arago held the same opinion—that, if a few high towers, surmounted by very long metallic rods, communicating properly with the earth, were erected to the south-west of our European towns, the latter would rarely or ever be troubled by storms. Such an arrangement would prove especially beneficial to such towns as Brussels, Dresden, or in the south of France, where storms come on suddenly, and sometimes with remarkable energy. Indeed, it is said that the French philosopher, Charles, amused himself more than once in arresting the progress of a storm already begun and approaching Paris, by sending up a large kite with a metallic string. The wooden stand to which this kite was attached is still preserved in the *Conservatoire des Arts et*

Métiers, at Paris; the wood seems to have been literally roasted by the numerous electric discharges that have rained upon it. It is, indeed, evident that we have at our command means of allaying storms. Several experiments made by Dr. Lining, at Charlestown, in America, and by M. de Romas, at Nérac, in France, place this matter beyond doubt. Arago himself declared that the problem of transforming thunder-clouds into ordinary clouds had been solved. Now, by subtracting their electricity, we prevent such clouds from forming hail; and, to give some idea of what importance it would be, in certain districts, to establish a catching agency of balloons, kites, or towers, with metallic rods, it will suffice to mention that not a year passes without a series of terrible storms breaking over the south of France. The hail damages the crops to such an awful extent, that at Rieux, Comminge, Lombez, etc., it is not unusual to see half, and sometimes three quarters, of the crops destroyed in this manner. Some years ago, an official report stated the damage in the south of France, after one storm, to amount to twenty-five millions of francs, (one million pounds sterling.) The kites which M. de Romas flew at Nérac, the strings of which were surrounded by fine copper wire, effectually subtracted electricity from the storm-clouds; and, whilst his experiments lasted, no lightning was seen nor thunder heard. These kites rose only one hundred and sixty yards, or thereabouts, into the air; and yet, in presence of comparatively small thunder-clouds, M. de Romas drew from the extremity of his cords flashes of lightning, seven, nine, and ten feet in length. Thirty such flashes were extracted by him in less than an hour, besides a number of lesser ones, about two yards long.

Electric sparks have been very frequently employed in medicine. It is said that slight electric shocks, from a weak battery, are beneficial in rheumatic and paralytic affections; and I have seen them resorted to with beneficial (though transient) effects in such cases. Several cases of perfect cures in this class of affections are, however, on record; as well as cases of alleged cures of other ailments.

The electric battery has been proposed by a Belgian author, the late M. Jobard, as an elegant substitute for the guillotine!

Another useful application of the electric spark is in the analysis of gases, for which purpose it is frequently resorted to by chemists. But numerous and important applications of electricity, such as the electric telegraph, electro-metallurgy, etc., were not made until after the discovery of Galvanism—electricity of contact, or electricity flowing in circuits.

The researches of Galvani were not due to hazard, as the common legend would make them; they date from 1772, as is seen by the mss. deposited by him at the Institute of Bologna, and duly registered by the Secretary. On the twenty-second April, 1773, his paper "On the Muscular Movement of Frogs" was presented to that Academy. There also is to be seen his first ms. upon the contraction of frogs' muscles by "artificial" electricity; it bears the date 6th November, 1780, and in it he says "the frogs were prepared as usual"—an expression which proves that this was not the first time he had experimented with them.

Galvani found that when a nerve and a muscle of a frog's leg are brought into contact, a contraction ensues; that, when the nerve and the muscle are connected by a metallic wire, a contraction likewise occurs; and that, when *two* different metals are used in these experiments instead of *one*, the contractions are much stronger. Volta was the first to repeat these experiments; and this last fact struck him so forcibly, that it eventually led him to the discovery, in August, 1796, of the instrument which bears his name. The Voltaic pile consisted, then, of plates of two different metals brought into contact; by multiplying the number of these plates, (which was originally *two* only,) and separating them with pieces of damp cloth, the pile was formed. The cloth was soon replaced by an acid liquid, as imagined by Volta himself; and, a little later, Cruickshank gave the apparatus the form of a trough, divided into cells by a series of pairs of metallic plates, into which was poured an acid solution. In more recent times, the apparatus has been modified and improved in a hundred ways; and we have Daniell's pile, Grove's battery, Bunsen's battery, and many others capable of producing very powerful effects. Economy has been studied also in the construction of these wonderful instruments.

By these successive discoveries, man was placed in possession of a new power

of extraordinary capabilities—an agency producing light and heat such as were never before equaled in intensity, and possessing a decomposing action upon chemical compounds which he had never before been able to separate into their elements. Not long after Volta's discovery, Nicholson and Carlisle decomposed water, by means of a pile of zinc and silver plates, and saw hydrogen gas evolved at one pole whilst oxygen united with the metal at the other. Then followed Davy's grand discovery of the alkaline metals, and a host of remarkable facts of great importance to chemistry.

But another interesting discovery remained yet to be made before we realized the full benefits of this comparatively new agent. It was that made by the Danish philosopher, Ørsted, in 1820, who found that wires which carry an electric current have a curious action upon magnets. If an electric current passes over a magnet pointing north-south, the latter immediately turns east-west, and remains in that position so long as the current lasts. Davy soon found that the wires which carry an electric current are in reality magnetic, and capable of creating artificial magnets, (the principle of the electric telegraph.) Then follow the remarkable researches of Ampère, Faraday, and W. Thomson, which bring our knowledge of electrical force to its present advanced state. The most powerful magnets are produced instantaneously, by simply causing the voltaic current to circulate round a piece of soft iron; and, by the aid of such powerful electro-motors, we obtain the utmost effects that electricity can realize.

It is curious to note the gradual rise of electro-plating, after the chemical properties of the Voltaic pile were known. Long ago it had been observed that, when an iron bar was plunged into a solution of copper, the latter metal was precipitated upon the iron. A German, named Wach, appears to have been the first to show that copper could be thrown down from its solutions by the electric current; and, in 1837, M. de la Rive found that copper could, in this manner, be made to cover bodies placed in the solution, and model itself upon their forms. However, the observations of these authors seem to have been little heeded; and it was not until Spencer, in England, and Jacobi, at Dorpat, succeeded, almost sim-

ultaneously, (and in ignorance of each other's experiments,) in reproducing medals, etc., by means of electricity, that this new and important art sprang up. Electro-gilding is a little older: it was discovered by Brugnatelli, a pupil of Volta's, who, in 1803, found that gold could be precipitated upon objects in an alkaline solution of that metal, by means of the Voltaic pile. The process was afterward perfected by M. de la Rive, Elkington, Smolz, and several others. The advantages of this happy application are too well known to need mention here. Before its discovery, gilding was performed by means of mercury, and the operation was both costly and unhealthy. In the electric process, the quantity of gold deposited is exceedingly minute, and adheres so firmly, that the object gilt presents the same advantages as if it were of solid gold. Upon a silver spoon, for example, the quantity of gold deposited is worth about threepence; and gilding upon brass is cheaper still.

By the same active electric current faithful copies, in metal, of statues, bas-reliefs, medals, etc., are successfully obtained. Not only can any one metal be thus deposited upon another, but they can be made to adhere, in thin layers, to wood, porcelain, cloth, etc. In Paris many of the large and apparently *bronze* statues that decorate the town are merely *cast iron*, which has been covered with a layer of copper of the required thickness by means of the electric current. M. Oudry, whose work-shops I visited not long ago, has thus covered several statues, fountains, monuments, etc., in France. The process consists in covering the iron statue with a sort of varnish, which appears to be a mixture of plumbago and some other matter, and immersing it in a vast bath of sulphate of copper. The statue is put in connection with one pole of the battery, whilst the other plunges into the liquid. Copper is uniformly deposited, and the coating may be obtained of any thickness. Our readers will readily judge of the enormous difference between the costs of a bronze statue and a cast-iron one coppered by electricity. And yet the latter, after being rubbed with a mixture of plumbago and oxyd of iron, is scarcely distinguishable from real bronze, and is, to all appearance, quite as durable as the latter.

The roofing of houses, by means of copper deposited by galvanism on linen, is another ingenious application of the useful

electric current. The introduction of flat roofs in modern edifices renders the adoption of a metallic covering necessary. Iron rusts too soon, lead is too heavy, copper too expensive, and zinc dangerous in case of fire, as it ignites with violence. But, by soaking linen in gas tar, covering one of its surfaces with plumbago, and depositing a thin layer of copper upon this coating, by means of the electric current, we have the very article we could wish for. In like manner printing type, and blocks for engraving, etc., are produced by writing with varnish upon a metallic surface, and then depositing copper upon the parts not protected by the varnish.

Calico-printers have also availed themselves of the electric current in various ways; for instance, in dyeing in figures upon cloth. In this process the required pattern is engraved upon a metallic block, and the cloth moistened with a weak acid solution. The cloth is then placed upon a sheet of tin foil, or other conducting surface. The metallic block is now connected with the positive pole of the battery, and the tin foil with the negative pole. As soon as the engraved metal block touches the acidulated cloth, the exposed portions of its metallic surface are dissolved and incorporated with the cloth, impressing on it the given pattern; the latter, though invisible, comes out, as if by magic, when the cloth is afterward passed into the ordinary dyeing solutions.

But I should never finish were I to attempt to enumerate here even the more important only of the useful applications of galvanism. When it was discovered that a wire through which an electric current circulates is capable of magnetizing iron immediately, the electric telegraph became a possibility which was not long in being realized most completely, by the distinguished Wheatstone. When such a wire, however long, circulates at one of its extremities round a piece of soft iron, the iron instantly becomes a powerful magnet capable of attracting another piece of iron. So that if I stretch a wire from London to Edinburgh, and if at the latter place this wire circulate round a piece of iron, and then, in London, I send a current of electricity into that wire, the piece of iron at Edinburgh instantly becomes a magnet, and will draw toward it another piece of iron in its neighborhood. Such is the principle of the electric telegraph. The motive-power, set up in London and

carried on, in an instant, to Edinburgh, being once given, it was the affair of the mechanic to transform this motion into any shape he might think proper, and so establish a system of signals.

The electric clock is based entirely upon the same principle; and by means of this ingenious apparatus and a sufficient number of wires, the Observatory of Greenwich might give the exact Greenwich time to every town, or even to every house, in Britain at once.

In the electric light we have another useful effect of the galvanic current. It is produced when the two wires of a powerful battery terminate in charcoal points, which are held in proximity one to the other. As the electric current passes from one of these points to the other, it produces an intense light. When it was attempted to light shops and streets by means of this powerful luminosity, it was found too intense to be borne with impunity by the eyes. On the contrary, it is extremely useful for illuminating large public works carried on at night, or for signaling through the dark, etc. For signaling, Professor Way's mercurial light appears to be preferable, on account of its steadiness. It differs from the other only in that the electric current flows over a thin vein of running mercury instead of from charcoal.

M. Jacobi, in Russia, M. Froment, in France, and many others, have constructed a great variety of machines worked merely by electricity. Some of these are certainly very ingenious. I have seen in Froment's work-shops almost every description of machine, from pumps and mills to pianos and organs, all working admirably by means of a single electric current. It is hoped, no doubt, that the day will come when this force will be able to compete with steam; but that day has not yet arrived! However ingenious the disposal of the electro-magnets, not only the question of cost, but that of power, has hitherto been in favor of steam. In the latter case, we burn coal to produce the steam; in the former, we consume zinc in the battery to produce the current: but, as we have already burnt coal to produce the zinc, our readers will understand that competition is impossible until we have discovered a battery of great power and slight cost. Such is the problem which at present occupies more than one electrician.

How would it be if we produced electricity by burning coal? Such has, indeed, been recently effected. It is known that, when the poles of a magnet are made to revolve before the poles of another magnet at rest, an electric current is set up. Now, imagine a set of enormous horseshoe magnets fixed in a stand, and a wheel loaded with a number of solid iron cylinders revolving before them, and the motion being produced by a small steam-engine. Such is the apparatus that, for some time past, has darted the electric-light over the ocean waves at South-Foreland, under the superintendence of Mr. Holmes; and such an one did I see in active operation at Neuilly, near Paris, about two years ago. The current thus produced is a very powerful one, and the cost resides in the amount of fuel consumed. But, even in these advantageous circumstances, it has been found that electricity can not compete with steam as a motive power. However, there is no cause to grumble. How many things has electricity realized that steam can never realize?

The method generally used for blasting rocks, or firing mines, by means of a slow-match, is not only dangerous, but uncertain. Now, many years ago, Franklin had an idea that this operation could be advantageously performed by the electric current. Although this appeared simple enough at first, it was some time before the idea could be turned to account practically. That the thing is thoroughly practicable, however, was amply seen when the submarine cable was laid between Dover and Calais: a cannon placed upon the cliffs of Dover was shot off by the electric spark of a battery at Calais. But this wonderful experiment could only be performed with a battery composed of a hundred and forty Bunsen's elements. At present, Mr. Statham and Vicomte du Moncel have invented apparatus, by means of which mines can be exploded with a very much smaller battery. When no great obstacles lie in the way, it is doubtful whether we need have recourse to them; for blasting rocks, even under water, can be effected by passing an extremely fine and short piece of platinum wire through the body of the charge, contained in a water-tight cartridge. When the current passes through this wire, the latter glows with an intense red-heat, and explodes the charge.

Rheumatic and other patients have re-

ceived benefits from the electric current flowing from a weak apparatus, so as to deliver a series of mild shocks to the parts affected; and recently electricity has been applied, in an ingenious manner, to extract poisonous metals, such as mercury, lead, etc., from the human body. To effect this, the patient is placed up to his neck in slightly acidulated water, in a zinc bath, isolated by gutta-percha, and being isolated himself from the sides of the bath by a gutta-percha seat. Holding in one hand the positive pole of the battery, gold, silver, mercury, etc., flow from the pores of his body, and fix themselves on the sides of the bath, which constitutes the negative pole. These experiments were tried in New-York in 1852, and communicated to the Academy of Medicine at Paris in 1853, by MM. Vergnès and Poey. A patient that had taken mercury fifteen years before the experiment had a considerable quantity of that metal extracted from his body in this electric bath.

It has been proposed to extract silver, gold, and mercury from their ores in a similar manner. Becquerel, in France, has undertaken to treat this subject, and has, indeed, resolved the problem in a scientific point of view; but the process has not yet been put in operation practically.

I pass over hundreds of experiments, some of which have already had their practical results, while others promise to

become useful hereafter. I shall conclude this paper, by relating briefly an experiment of my own. Reflecting upon the powerful decomposing chemical force with which we are furnished by the electric current, it occurred to me that I might be able to render sea-water potable, by decomposing and extracting its salt, by means of a moderately powerful battery. The experiments were made in Ostend a few years ago. My apparatus consisted of three vessels containing sea-water; the center one contained the water to be operated upon, the two others communicated with the two poles of the battery. The three vessels were connected by two bent Ω tubes filled with sea-water. As the only battery I could procure in Ostend was rather weak, I passed the current through the water for about fourteen hours, after which one of the outside vessels had become acid and the other alkaline. The sea-water was then filtered through charcoal, and was nearly drinkable. It would have been, I doubt not, quite potable had the battery employed been more powerful. As it was, I found it difficult to extract the last particles of salt; and the water, after subsequent trials, still presented a slightly brackish taste. I have not had an opportunity of repeating this experiment since; but, from the results obtained, I think it probable that sea-water may be rendered potable by means of the electric current.

From Fraser's Magazine.

T H E R E I G N O F T E R R O R . *

PART I.

THE new work which now lies open before me is called *Histoire de la Terreur*. The nature of a tragic volume is spoken by this title-page: it strikes upon the memory like a tolling bell; reviving im-

ages of pain and disease which end in death. It is a homily on the misery and the depravity of human nature: it affects the nerves like a sentence of condemnation.

The history which this book is to disclose, comprising the period of the Great French Revolution from the year 1792 to 1794, is the cruellest to be found in the annals of mankind. It is the history of

* *Histoire de la Terreur, 1792-1794: d'après les documents authentiques et des pièces inédites.* Par M. MORTIMER-TERNAUX. Paris. 1862.

persecuted innocence and of ruined greatness; of love replied to by hatred; of religion and virtue trampled down: but as long as humanity is moved by compassion for a great tribulation, as long as it is touched with awe by a signal change of fortune, as long as it is stirred by the contemplation of a brave endurance, as long as it acknowledges sympathy with a perfect Christian patience, so long will men be led to ponder upon these records; and for this reason M. Ternaux's book will be received with eagerness, and read with interest. This volume is only the first portion of an unfinished work, and therefore any present criticism would be premature. I am not, then, writing as a critic, but merely seeking to convey to my readers some distinct abstractions from the mass of impressions gradually accumulated and stored up in the memory, which have been revived and augmented by M. Mortimer-Ternaux. The hand that summons these thoughts to present activity, and leads them out in a moving procession, is directed by a heart with whose feelings I am proud to find my own in unison; a heart which revolts against cruelty and oppression, and which has courage to plead a righteous cause. M. Ternaux speaks in his preface with just indignation of a party, of which M. Louis Blanc is the most distinguished member, who would palliate the excesses of the French Revolution—who would glory over its atrocities, and represent Robespierre and Danton as its martyrs. His tone is temperate: he does not think that a protest against crime can require the aid of inflated periods; and he concludes with the belief that a candid relation of the facts of the case will suffice for the merits of his cause. I hope he is doing no more than justice to his country by this faith—I hope that if, in a period of feverish convulsion, it was guilty of an immense iniquity, its citizens will not now in a cooler hour steep themselves more deeply in that guilt by upholding it as a virtue—I hope that only a small minority among existing Frenchmen are prepared to do this—I hope that only few can be found to preach the doctrines of Ferocity—I hope that France is not to wear an eternal stain. I will not believe that a great nation is capable of deliberately adopting Terror for its creed, and Robespierre for its idol.

I have before me at the present moment

a portion of the correspondence of some of the most distinguished men of the France of 1793, which may serve as a fair sample of their humanity.

For example: "Dear citizen, eighty heads have rolled down from the scaffold to-day, and there may be a hundred to-morrow. *Quel Délice*. How delightful!" And what were these enemies whose bleeding heads constituted such a precious spectacle? Were they dangerous foes, foreign invaders? were they taken sword in hand? was there any thing like an equal chance between the destroyer and the destroyed? There was not! there was silence and submission. The King perished, a victim to his horror of a civil war. Well-intentioned, but weak, by his very terror of bloodshed, he was the cause of that full flow which swelled into a deluge, which made all the gutters of Paris run purple, and which swept into its hideous current by thousands such poor innocent, harmless existences as those whose names follow here, copied from the official *liste des condamnés*:

"Jean Julian, wagoner, for having cried 'Vive le Roi,' condemned to death.

"Jean Baptiste Henry, aged eighteen, journeyman tailor, convicted of having cut down a tree of liberty, executed September 6th, 1793.

"James Duchesne, aged sixty, formerly a broker, since a servant; John Savage, aged thirty-four, gunsmith; Françoise Loizelier, aged forty-seven, milliner; Melanie Canossa, aged twenty-one, milliner, and Marie Madeleine Visolle, aged twenty-five, female hairdresser; all these, convicted of having, in the city of Paris, where they resided, composed writings, stuck bills, and *poussé des cris*, were condemned to death, and executed the same day.

"Genevieve Gounon, aged seventy-seven, sempstress, convicted of having been the author or accomplice of various conspiracies formed since the beginning of the Revolution by the enemies of the people and of liberty, tending to create civil war, to paralyze the public, and to annihilate the existing Government; condemned to death the eleventh of May, and executed the same day.

"François Bertrand, aged thirty-seven, tinman and publican, convicted of having furnished to the defenders of the country some wine injurious to the health of citizens; Marie Angelique Plaisant, sempstress, at Douai, convicted of having exclaimed, 'A fig for the nation!' and executed the same day."

Let this specimen suffice as a record of the policy of the Jacobin rulers—that gang of assassins which called itself a government, and which undertook in a

special manner to provide for the public safety. Their tender, their careful consideration—their unremitting diligence—their scrupulous vigilance—are sufficiently manifested by the profound obscurity of the names upon which they summoned the guillotine and the lantern to flash the last sharp gleam of light; their promptitude and determination are sufficiently recognized in the swiftness with which sentence and stroke followed upon detection. They would seem to be harmless beings, these poor victims: they occupied no high station—they followed peaceful trades: their existence, one would think, could hardly afford any subject for serious alarm; but it must be remembered that creatures hitherto unimportant acquired considerable power in the revolutionary movement, and that those who struck at miserable milliners and hairdressers and poor artisans, knew by their own experience what such individuals may, by a change of situation, be capable of effecting. It was the fierce brewer, Santerre, who led the battalion which stormed the Tuileries on the twentieth of June. It was Collot d'Herbois, an unsuccessful player from the theater at Lyons, who was the most overbearing of the revolutionary orators; who contrived and carried out the worst of the barbarities against the Royalists of Paris; and who revenged on his native town its adherence to persecuted priests, and perhaps at the same time its criticisms on a bad actor, by scenes of carnage in its streets and in its river, which may be said, in the great contest for supremacy in cruelty, to have won the prize. For here things went so far that those left to live prayed to die. They came to the feet of the murderers imploring to be delivered from the infliction of existence with the urgency which men in extremity are wont to use when they plead for life. They had seen and suffered so much of horror, that they wished to die and forget it. They would not drag about with them the weight of memory. They had seen mothers chained to the stake, and forced to look on while their children were shot down like wild beasts—they had seen pretty little helpless babies slaughtered, and their bleeding bodies danced from pike to pike as a show for their parents—they had seen women dragged out to be murdered even in the hour of their travail—they had seen such sights, and known such partings, and suffered such unspeakable an-

guish, that death had become very welcome; and therefore it ceased to be cruel merely to kill, and it became necessary to add circumstances of outrage to the last hour. Life was prolonged for subtle additions of agony, and the victims were not permitted to look upon annihilation as a blessing; it was made a curse even to the most pious souls, by the manner of its perpetration. Virtuous women were forced to tremble at a death which was accompanied by foul indignity. They were stripped of their clothes, bound to naked men, and exposed to the brutal gaze of the populace; and the bitter cries of their outraged modesty, which a violent death could not extort, gratified the ears of their destroyers, till they were hurled at last into the oblivion they longed for, and the waters of the Rhone closed kindly over them to hide their disgrace and their despair. Fouché was the partner of Collot d'Herbois in the command of these massacres at Lyons. He stationed himself at a front place in the window of the Hôtel de Ville to survey the fusillades, and erected a telescope there in order perfectly to enjoy the sight. This man escaped the punishment which overtook his comrades; and if their tragic end points at the possibility of a just retribution even in this world, his prosperous career forbids the thought.

Jourdan, who made the first step on the day of the taking of the Bastille toward that distinction which subsequently obtained for him the honorable title of *Coupe Tête*, by tearing out *with his own hands* the hearts of Foulon and Berthier, and elevating them on a pike for the admiration of the less skillful among the crowd, was by his first trade a butcher; and Le Gendre, who at a later date made at the bar of the Assembly some of the most exciting denunciations against the royal family, and afterward against the Girondins, was of the same calling.

Such were the elements that the eloquence of Mirabeau and others of his side—like him, sprung from the aristocracy of France, but resolved to embark in the popular cause—had called into sudden activity. Such were the men whom they had invoked to clamor for what they called reform. They lamented their error too late.

Mirabeau, when the immediate consequences of his own acts appeared in the general and increasing disorder of the State, began to look further forward, and

to see clearly that there was something worse to come. He, the only great genius of the Revolution, struggled to arrest it; he worked passionately with his teeming brain, with his ardent imagination, with the strong impulse of his enthusiastic nature—but he worked in vain. It was too late; and he only lived to learn how much easier it is to rend than to close up, to destroy than to reconstruct. He had one intimate friend who was attached to the royal cause. This was the Count de la Marck, who belonged to the highest nobility in Germany; he was a son of the princely house of Arenberg. He was appointed by Maria Theresa, at the time of Marie Antoinette's marriage, to make one of her escort to Paris; and in private the Empress, assuring him of her particular esteem, requested him to watch over her daughter's fortunes, and to serve her faithfully if he ever saw her in trouble. He obeyed that sacred command—he was a loyal, devoted servant; he wanted neither office nor enolument; and though his friendship with Mirabeau subjected him at one time to suspicions from the Court, he never for a single moment swerved from his attachment to the Queen. To him, Mirabeau revealed his secret thoughts; and while he told them, the hot sweat oozed through his pores, his face grew livid, his powerful frame shook with passion; he prophesied like the death-seer, and shuddered at the pictures which his own prescience painted. "The King and Queen," said he, "must take some decided step; if they let things go on as they are going now, it will be horrible. *La populace battra le pavé de leurs cadavres.*" He saw his friend's features, naturally calm, convulsed at these words, rapid changes of color on his face indicating an unwonted hurry of the blood; the emotions he had excited were reflected back upon himself. His passion rose to a towering height, and with appalling force he reiterated his sentence—"La populace battra le pavé de leurs cadavres." This was in the year 1790.

Mirabeau's efforts for the deliverance of the King and Queen, which so unhappily fell to the ground, were not instigated by the love of money merely. They were the fruits of repentance, not of corruption; he was urged partly by his contempt for the proceedings of the National Assembly, and still more by a strong movement of compassion for those great sorrows of which he had sown the first seeds.

It can not be denied that he accepted from the Court the payment of his debts, which were considerable; but it must be remembered that without their liquidation he would not have been a free man; and I firmly believe that Mirabeau *without his necessities*—following merely the guidance of his feeling—would at this moment have advanced to the rescue of his sovereign. If Mirabeau's disgust at the disorder which prevailed; if his disdain of the feebleness of the Government; if his foresight of the reign of physical force, which was to plunge France back into barbarism, inspired him with the desire to make a great effort for the support of the throne—a deeper sentiment, a more glowing thought, a passionate devotion, gave new energy to that impulse after his first interview with the Queen. This interview took place after a long period of negotiation by letter, conducted in secret, with La Marck's assistance. The King and Queen had in the beginning of their troubles resented the suggestion of any service from Mirabeau. "I hope," the Queen had said, "that we shall never sink so low as to have recourse to M. de Mirabeau!"

Poor Queen!—she had come to it now. She believed him—but that suspicion was unjust—to have been one of the instigators of the revolts of the fifth and sixth of October, when, according to the description of Camille Desmoulins, ten thousand Judiths set forth to cut off the head of Holofernes, when the precincts of the palace at Versailles were invaded by a sanguinary mob, when she and her King were forced back to Paris by a frantic populace with La Fayette at their head, (La Fayette, who let the tumult rage which he might have quelled;) when she saw with a horror she never could forget, the butchery of her faithful guards; but the hour had arrived which obliged her to ask this man for his help. The King's lethargy and continual fluctuations of opinion had interfered with all Mirabeau's designs for his good hitherto; he hoped now to make a stronger impression by personal contact, and by exerting a more direct influence on the Queen, through her to rouse the King. The royal family were at this time at St. Cloud.

Mirabeau had a niece, Madame d'Argenton, living in the neighborhood, and at her house he passed the night previous to this famous interview. It took place in the Queen's apartment, but in presence of

the King; and I mention this because many false rumors, adding circumstances of romance to a truth which needed no addition, have been spread abroad on this subject. The King wished his connection with Mirabeau to be concealed from his ministers. Necker, whom Mirabeau held in contempt, was at that time in office. It is difficult to keep any proceeding a secret where a woman is concerned; and when the scene of action is a palace, it becomes impossible. Accordingly, small facts oozed out through unsuspected apertures, and, as usual, with their forms contorted. The actual details of the case were indeed never rightly understood until the publication of the correspondence between Mirabeau and De la Marck.

It was a strange meeting between such a man and such a woman. He in his person touched the extreme of human ugliness, as she in hers reached the extreme of human beauty. He was the descendant of a noble race, but his manners gave the lie to his birth; and it was no wonder, for his youth had been spent in troubles and disorders, and in long periods of lonely imprisonment. The severity of a tyrannical father had stimulated his evil passions, and their traces were savagely stamped upon his face. The small-pox, too, had come with its malignity to blur and blunt features already sufficiently misshapen by nature; and all this ugliness was on a colossal scale, at once imposing and revolting by its mass. Intellect and size gave a kind of generous grandeur to the aspect of this monstrous man; but the sensual combatted on even terms with the intellectual in his countenance, and his manners, when he strove to please, were grotesque, from an exaggeration of politeness. This was felt especially in the company of ladies, when an excess of homage and compliment was joined with a freedom of tone which betrayed the society he was accustomed to haunt. He had a way, too, of turning green when he was agitated, which was eminently disagreeable. He was perhaps never more deeply moved than on this occasion, when the Queen advanced to meet him, and she at her first movement towards him experienced such a nervous shock as affected her health for some days afterwards. She was made to inspire loyalty and love. It was difficult to resist the majesty of her demeanor and the sweetness of her beauty. Her dignity owed something of its grace to the

long imperial line of which she was the fairest scion, but more to the candor and courage of her soul. She rose so much above her humiliations that her adversity became the glorious crown of her majesty; it was not by courtly art or skillful dissimulation that she showed as a great queen, but by her brave sincerity. And now, after the first salutations were over, she addressed Mirabeau at once upon a theme from which most women in her position would have shrunk in fear. She questioned him as to the part he had played in the insurrections of October. Mirabeau was completely subdued: he poured out protestations, impetuous and honest, of his innocence of any share in those fierce attacks upon his sovereigns; but he was eloquent in self-accusation concerning the troubles he had actually been the cause of; eloquent in repentance and in adoration; and he left this conference bewildered with admiration.

The next day one of the popular journals—*L'Orateur du Peuple*—denounced Mirabeau as having been on a secret mission to St. Cloud, and insinuated that he had seen the Queen. The Assembly investigated, but without success, for Mirabeau explained the excursion by his visit to his niece, and silenced accusation by the power of his lungs.

Here, then, was another hope. The King had let go Malesherbes and Turgot, those upright and able ministers who would have delivered his unhappy country from a frenzied revolution by a wise reform; he had tightened his reins when he should have slackened, he had slackened when he should have tightened; he had dropped them in the moment of difficulty when his hand was most needed to direct, and he was now thrown on his back at the heels of the unruly beast he was to guide; but here a strong man had come to give him a helping hand and set him on his seat again, if he would but have the courage to mount and stay there. He could not do it, and the opportunity was lost. Mirabeau made many schemes for him, all of which were contemplated in turn and none adopted.

This intrigue with Mirabeau was indeed one of the King's many great mistakes. As a secret agent working underhand, his operations were dark, dangerous, and inefficient. He should have been appointed the King's minister, and then openly serving him, he might by his commanding eloquence, his power, and his genius, have

borne down opposition. In his present position he was distrusted by the popular side, while he had no honest support from the Crown. It was a hopeless struggle in the midst of which he died, leaving Louis as he had found him, clinging at the edge of a precipice to a few rotten shrubs by way of anchorage, feebly struggling to maintain his slippery hold, with a faint thought, unworthy to be called a hope, that the abyss was not really perhaps so deep as it was said to be. Unfortunate King!—the cause of much harm, but intending none. I can not sympathize with M. Ternaux when he speaks of him as *le plus humain des Rois et le meilleur de hommes*; for I think that the man who, either from cowardice or incapacity, forsakes the post he is appointed to defend, or gives up to the thief the treasure he is bound to guard, or lets drop the standard he is called upon to clutch even in the grasp of death, can not be the best of men. However, his penalty may exceed his fault, he must still be regarded as one who has failed in his duty. Louis XVI. in his fall dragged with him a whole dynasty, and it was no necessary fall; he might have recovered himself by an energetic effort, but his disposition was so apathetic, that in the very height of his difficulties, when his ministers spoke of the perils which encompassed him, they complained on leaving his presence that he had listened with as much indifference as if they had been gossiping about the remote affairs of the Emperor of China—they found it impossible to convince him of the emergency of his case. There he stood in his accustomed attitude of irresolution, rocking from one leg to the other, and favoring one view this day and another the next. His aspect, like his mind, was unkingly; his manner was blunt; and when he made a concession, he made it so clumsily that it looked like an affront. His speech was abrupt even to the point of rudeness; he was equally unskillful in command and in submission, and wherever he set his foot he stumbled. He was neither a great good man nor an able bad one, and it was his fate to be placed at the helm when the vessel of the State needed the best pilot.

A man strong, wise, just, and resolute, such as the Prince whose loss England is now deploring, should have been there to guide that ship rightly, to know when to guide with the tide and when to pull against

it—or a cunning, unscrupulous ruler, a Prince such as Macchiavelli has described, might have shifted through the straits, might have hoisted and lowered his sails at the lucky moment, and have got through his own time securely, indifferent to what was to come after. But Louis had neither strength nor craft to meet his position as the heir to a throne stained with vice, as the king of a corrupt, venal, and sensual aristocracy, and of a fierce, hungry people. From the moment when he and his wife, holding aloof for a while from the throng of servile courtiers and fickle subjects, ever ready to fly from the death-bed of an extinct monarch to a new hope, and to press their homage upon a young sovereign—from that moment, when these two, kneeling side by side, with joined hands, dropped tears and prayed; saying: “Oh, mon Dieu, protégez nous, nous sommes trop jeunes pour regner,” to the hour of his capture by the people he had loved, his desire had been to clear his throne from stain, his court from corruption, and to relieve all the sorrows of his subjects. With the help of a strong minister he might have done the work gradually and cautiously, with a temperate discretion, not giving way to the clamor of one or of another, but doing what it was right to do, and changing not with impulsive rapidity, but with sober determination, where change was necessary. Louis, however, had not vigor to support a worthy Minister; he dismissed Turgot, although he sympathized with him, in compliance with the remonstrances of that blind, narrow-thoughted aristocratic party to whom any measure of reform seemed a crime; after him came Maurepas, Necker, Calonne, Brienne, and Necker again; then the summons of the States-General; then a feeble opposition to the demand of a double vote for the Tiers-Etat. The King opposed, hesitated, gave way, and thus opened the breach to the besiegers, who well knew how to enter it. Either consistent concession or resolute repression might have served, but feeble opposition could only irritate, and so it was that this great tempest gathered, that the States-General became the National Assembly, and that an incapable ministry dropped the reins and let the Assembly seize them, that all the social relations of the country were changed by a rapid series of destructive decrees, that

the Assembly itself was dominated by the populace, and that the King was left with nothing but his veto and the scorn of the nation. Sanctified though his memory may be by his piety and his great afflictions, and by his love for his Queen and children, it is impossible to esteem such a King; but not withholding the pity that he deserves, I turn with a deeper regret, and with a fuller sorrow, to contemplate the fate of that radiant, generous Queen, who shared with him the highest and the lowest fortune—the throne, the prison, and the scaffold.

Marie Antoinette was only fifteen years old when she left the home of her imperial mother at Vienna, to become the bride of the Dauphin of France. She had an affectionate heart, and it was pained by the separation from her brothers and sisters; she shed many tears then, not knowing that at a later day those natural tears would be charged against her as treasonable crimes. When she took leave of her own servants, who were to be exchanged for those of another country, she had a thousand messages of love, but they were interrupted by her sobs, for every member of her house. This was only a soft sorrow, (unlike those she was afterward to know,) such as rains itself away, and with no dark prestige of the future, but with a hopeful heart, she soon smiled again, and when she made her triumphal entry into Strasburg, saluting with winning courtesy the expectant crowd that thronged to see her, she appeared to them as an image of beauty without a rival. Troops of children, in fancy costumes as shepherds and shepherdesses, strewed flowers in her path; and she, not guessing how it was one day to be sown with thorns, brightly glanced her thanks. If a malignant spirit, a voice from hell, had then muttered in her ear what was afterward to come, what kind of crowd was at a later day to wait upon her, thirsty for her blood, her honest heart would have repelled the fiend, and told him that he lied. Goethe, who was at that time a student at Strasburg, interested himself in all the preparations for the triumph of the royal bride. He was painfully struck by the subject which the tapestry hangings of the reception-saloon represented. It was the history of Jason and Medea. Creusa in her death-struggles, Medea in her fierce anguish; and he protested against the offense to taste and

feeling which brought an image of terror and of death to confront a sensitive woman on such an occasion, and which might shape itself to her imagination as a horrible foreboding. But the foreboding was for the poet. The Princess was happy. It was well—it was right that the future should be thickly veiled, and that her thought should bound joyfully and gratefully in answer to the loyal acclamations which greeted her wherever she moved. When she reached Paris, enthusiasm was at its height, and the old King was so fascinated by his young daughter-in-law, that Madame du Barry felt jealous, and feared a new influence. The Dauphin's brothers were charmed, especially the Count d'Artois, who, handsome and accomplished, and distinguished by a certain epigrammatic talent in conversation, knew how to please a woman, and won from Marie Antoinette a warm sisterly affection. The Duke of Orleans too, for a time, left the bad company which his vicious nature led him to frequent for the enjoyment of her society. The grace of her pleasantry, the gentleness, joined to the dignity of her bearing, the sweetness and vivacity of her speech, the tenderness of her frank smile, lent something of enchantment to her presence, and the true goodness of her heart was felt in every accent and every look. But even now there was a dark spot behind the sunshine, a sadness in the splendor which surrounded this young Princess. From the crowd of worshipers one man stood apart, while so many hearts opened at her smile, one was shut up. That one, whose affection was most important to her, upon whose tenderness her whole destiny was hung, turned from her with indifference, and the most captivating woman in Europe was a neglected bride. It was a dangerous position for such a woman—young, enthusiastic, and proud; and if she had broken out into open resentment, and replied to coldness with disdain, I think that fault might have been forgiven her. The Prince who received her so ungraciously was in most qualities inferior to herself; a dull, clumsy youth, without any attractions either of person or of speech; and yet he could pain her by his neglect. It was her first trial, and she bore it with the same courage which supported her in the after-days of affliction; she defeated her sorrow by her resistance, and disappointed her humiliation by the smile with which she met it. It

was true that on many occasions her favorite ladies found her at the end of a day's pleasure pouring out secret tears in the silence of her bed-chamber, but she never uttered any complaint or reproach, and so it presently happened that the Dauphin, who had been insensible to her beauty, began to appreciate the charms of her disposition, and found himself attracted toward her by the playfulness of her humor, which is described by De la Marck, in a pretty untranslatable phrase, as the *douce malice de son esprit*. He positively fell in love with her against his will, and whatever the infirmities of Louis, his love was worth the winning, for it remained steadfast through good and through evil report, it stood firm against the shock of calumny, it was a strong shield in the sharp hour of opprobrium.

In the total eclipse of fortune, when all other delights and hopes went down, this light of love remained, a healing, purifying influence which led a crushed heart to God.

Surely, now, when Marie Antoinette was mistress of the throne of France and of her King's attachment, happiness had opened all its sources, and she had little to do but to draw her enjoyment from them. Pleasure was her business. To give great entertainments, to be charming, to dance, to go to the play, to invent new diversions, to direct new fashions, to supply to the throne in her own person the dignity and grace which the King's wanted; these were the most serious avocations of her life until she became a mother. It belonged neither to her position nor to her taste to interfere with politics at that time; her inclinations were not toward study or reflection, and her understanding was rather quick than profound; her judgment was penetrating, but she took little pains to improve it by education, and she was seldom engaged long in any one pursuit. She found her enjoyment in society, and her happiness in friendship. Her warm heart was impelled to seek friends, and, when they were found, to lavish favor and indulgence upon them. Two of them, the Princesse de Lamballe, and the King's sister, the Princess Elizabeth, were worthy of all her affection; but her choice was not always so wise, and her strong preferences, too little masked, gave rise to some of her troubles. She took a wonderful delight in the society of Madame Jules de Polignac, she was constantly in

her drawing-rooms; there she threw aside form to enjoy friendship, but she excited malignity and envy; and in contemplating the course of the Revolutionary history, it must never be forgotten that personal feeling was at the bottom of its most seditious movements. Patriotism directs a discreet reform; rancor, hatred, revenge, vanity, and envy stimulate a revolt.

Marie Antoinette, a foreigner in Paris, very young, and of a frank, joyous, and incautious temper, needed a careful counselor, and had none. Her husband was quite unable to direct her, and she had to steer her way as best she might through the perplexities of a Court loose in morals and rigid in etiquette, with no other help than that afforded by her sincerity of purpose and her eager desire to give pleasure and to do good. It was unlucky that Madame de Polignac was not capable of supplying any assistance to her inexperience. The object of a regard which offended those on whom it was not equally bestowed, she did not appreciate its worth; unlike the Princesse de Lamballe, she valued less the tenderness of the woman than the favor of the Queen; she took advantage of an enthusiastic generosity; she besieged Marie Antoinette with solicitations of office and place for friends and favorites of her own, regardless of the effect that these appointments might have upon the Queen's reputation; and, besides this, the society she invited her sovereign to meet was very ill-chosen.

On one occasion, Marie Antoinette remonstrated concerning the character of one of the guests. Madame de Polignac replied that she could not banish her friends even for the sake of her Majesty, and on this the Queen forsook the Polignac assemblies, though she still remained on friendly terms with the Countess. She now frequently repaired to the *salons* of Madame d'Ossun, one of her ladies in waiting, whose entertainments were directed with more discretion; but from this circumstance arose irritation and discontent in the Polignac coterie, and among the unworthy aristocracy of which it was composed, whose gratitude and loyalty should have been proof against all assault, this little sting of mortification generated poisonous scandal; and licentious epigrams and lampoons, circulated first in this select company, gradually found their way into lower circles, and at last, in the time of general agitation, into the

streets. A vile populace then insulted the Queen with a distich invented by one of her own nobility in his jealous spite. Some of the most offensive missiles which were flung at her by blood-stained hands were furnished from the apartments of her favorite friend, and though I would not defend or extenuate the ferocity of the people, I affirm that theirs was the lesser guilt; for those who made the lie knew that it was a lie; those who first set the slander going knew the virtues of the woman whose character they were traducing; and they wrote their epigrams one day, and knelt at the Queen's feet on the next, with courtly grace, and with the fawning which looks to thrift. One of the most infamous of these aristocratic libels was written on the subject of a reel which the Queen danced with the Marquis of Huntley; but it is enough to say that such things were. They have perished, as all lies must perish eventually, and I am not willing to revive their corrupt odor.

The French nobility were not true to themselves; their misfortunes are to be traced to their conduct; their frivolities and their profligacy were just subjects of animadversion, and they betrayed all their feebleness and selfishness as soon as the throne which they should have struggled to support was threatened. They thought of their own danger rather than of their King's, and they slipped away to other shores, by their emigration doing infinite damage to their country. They should have rallied round their sovereigns in that close and barbarous siege; they should have thrown themselves as a shield between their monarch and his assailants; they should have made a rallying-point for the cause of order; they should have used their eloquence to rouse the good hearts left in France to a sense of justice; but they preferred running away to breathe fury from distant shores in association with foreigners, thus irritating national pride, and stirring, not dominating, the passions of their infatuated countrymen. And I may mention here the fact that the Polignacs were among the first of the emigrants.

Marie Antoinette was worthy of much better associations. Placed as she was, her virtues became her misfortunes, for the generosity of her disposition freed her from suspicion, and the ready kindness of her heart was frequently abused. She

has been blamed for the careless avowal of her sentiments, because she disliked the etiquettes of the French Court, and gave way to her distaste, and because she gave offense to many rigid old ladies by setting aside tedious accustomed ceremonies, and allowed her lively perception of the ridiculous to appear upon occasions when prudence should have veiled it. The vices of a court are so far like the vices of a watering-place, that in both dangerous gossip and malevolence grow out of the idleness striving to be busy which belongs to a small assemblage of people perpetually meeting without any especial pursuit; but the consequences of the intrigues of a palace are graver, as they deal with more eminent characters, and trouble more important interests.

In an unguarded moment, Marie Antoinette gave offense (and the offense was never forgotten) to a man whose personal aversion, as much as any other cause, affected her subsequent destiny. This man was the General La Fayette. He was conceited, ambitious, pedantic, and, above all, personally vain; nature had not given him the endowments that he coveted; he was generally awkward, a bad rider, a bad dancer; tall, thin, and red-headed; and he struggled unsuccessfully to be like his brother-in-law, the Duc de Noailles, who had most of the graces and faults of fashionable society. Once, at a convivial supper, La Fayette, who was not fond of drinking, but who was anxious to do all that Noailles did, strove so hard, and to so much purpose, to rival him in his potations, that he was finally carried home in a state of intoxication.

It was through the influence of this same Noailles that he obtained permission to dance in one of the Queen's quadrilles, where it was her delight to assemble all that was most choice in the youth, beauty, and nobility of Paris; but his appearance there was not a happy one.

Where were these courtiers when, on the day after the flight, intercepted at Varennes, the Queen stood in her palace by the side of La Fayette, and saw in him her jailer? Did he retain the sting of that light laugh in his heart when he doubled the guard at the Tuileries, and established spies in every apartment, not conceding any mercy even to the modesty of the Queen his prisoner, but stationing one of his sentinels so as to command a view of her bed? His position was then one

of triumph, but he lived to regret it, and even on that day the dignity of the Queen's personal bearing deprived him of a portion of his enjoyment. The proud submission of her manner disturbed him when she offered him the keys of her private bureau and wardrobe, and he declined to accept them; she persisted, and placed them on the brim of his hat; he put them back in their place with the studied civility which he always assumed toward her. By her proceeding she sought to extort from him the confession that he was her jailer, and he knew well that he was so, but he did not choose openly to avow it.

If Marie Antoinette's vivacity of disposition led her sometimes to imprudence, her quick thought and her promptitude of action at others saved her dignity in difficult situations. A pretty anecdote in illustration of this, is to be found in Madame d'Oberkirch's Memoirs.

"M. de Lauzun" (says Madame d'Oberkirch) "was deeply enamored of the Queen; her Majesty could not endure him. He had the effrontery to assume the Queen's livery and follow her all day as a lackey, and even spent the night crouched at the door of her apartment. The Queen did not even recognize him; he was in despair, when, fortunately, an opportunity offered of making himself more conspicuous. Her Majesty was to drive from Trianon, and at the moment she approached her carriage, he bent his knee to the ground, that she might tread upon it instead of taking the usual step. Her Majesty, surprised, now looked at him for the first time, but like a woman of tact and good sense, as she was, she feigned not to know him, and calling a page, she said: 'Let that man be dismissed; he is very awkward, he does not even know how to open a carriage door.'"

This was an impertinence well and properly disposed of, and yet it may be easily understood how such a story circulating through the bad Parisian atmosphere, might collect offensive matter as it passed, which would wholly change its constitution.

The fact of the Duke's actual attendance on the Queen, and of the night passed by him at her chamber-door, would be the incidents to excite wonder and to engross comment, while those of her failing to recognize him in the first instance, and of her dismissal of him at the very instant of recognition, might be altogether dropped. It was the fashion among the French aristocracy at that time to be de-

liriously in love with the Queen, as it was the fashion at a later date among another class to look upon her with frantic hatred; the one was a consequence of the other; and while devotion, admiration, and hopeless passion exhausted themselves in sighs and couplets, breathed as incense about her throne, envy, the black shadow cast by love, was darkening all the way before her.

"For slander's mark was ever yet the fair;
The ornament of beauty is suspect,
A crow that flies in heaven's sweetest air."

And detraction was busy with her great name. She did not know it. She appreciated the homage as women do; and her heart was too much occupied with happy affections to admit distrust.

Her most passionate enthusiasm was for the Princesse de Lamballe. When adversity came, it drew these friends closer together, and when too many were found to fly for their personal safety, the Princess clung close. She left the home of her father-in-law at Vernon for almost certain death in Paris, on the news of her Queen's danger, and when her murderers forced a wretched barber, sickening at the task, to dress and decorate the soiled hair of that beautiful bleeding head, in order that their ironical cruelty might parade it on the point of a pike before the Queen's prison windows, still bearing in its mutilation the semblance of the festive scenes where the two used to be happy when they met, there was found hidden among its tresses a letter from the Queen to her friend, very earnestly and pathetically imploring her to run no risk, but to stay away in a happier place.

The Princess died a horrible death by disobeying this injunction, but it was better so to die, in such a cause, than to live any length of life. The urgency with which Marie Antoinette, throughout all her calamities, sought to shield her friends from her own perils, was one of the most noble of the many noble points of her character, and in justice to M. de Polignac, whose conduct contrasts so unfavorably with that of Madame de Lamballe, it should be told that the Queen approved of her desertion.

Among the many who watched the Queen in her glory with sour distaste, there was one whose intellect should have opened her heart to better influences: Manon Phlipon was the same age as Marie

Antoinette, she was the daughter of an obscure engraver in Paris. She grew up with great endowments of understanding, and she was the prodigy of her family. She was not slow to perceive in herself the merits which surprised others. She was fond of considering and investigating her own attributes. She had a very large share of self-love, so that not only those qualities which really distinguished her, but such as were common to all human beings, and even the most insignificant and basest actions of life, appeared to her exalted by association with her own person, so as to become worthy of minute examination and careful record.

She discerned her genius as something superior to the sphere in which she moved, and she could not see why, with her uncommon capacity, her ready gift of speech, and her personal attractions, her position should not be something greater than it was. A connection of her family who had a friend holding some employment about the Court, took the father and mother and little girl for a few days on a visit to Versailles, by way of giving them, and especially the child, a great treat. Here, from the attics of the palace, they were introduced to some of its splendors, and they saw the stately gardens and the beautiful women who walked among beautiful statues, passing pleasant hours without misgiving. Manon's parents were content to admire and praise, but Manon's own heart, young as it was, rankled with corroding gall, and she said to her mother as they walked down one of the majestic avenues, long and broad:

"Take me away; oh! do take me away. I love the statues, but I *hate* the living people."

The only reason for hatred was a sense of inferiority; and a small feebly-twinkling distant planet might hate the sun, and yearn to eclipse his light, as this young citizen hated the Queen. The hands of both King and Queen were open to gentle charity, were loaded with immunities. At her first coming the Queen, on her own impulse, had sacrificed a considerable portion of her private funds for the relief of those who had suffered by the accidental destruction of their houses on the day of her marriage ceremony; and from that day to the day of her death, whenever distress came within her notice, she was eager to relieve it. Her beauty owed more than half of its charm

to the kind heart which made her smile so captivating; but she sat on a throne—she moved in state—she had subjects and worshipers—she went in a magnificent carriage in long regal procession to thank God for the birth of her child; and that finely-shaped head, acknowledging by its gracious movement (this singular grace betrayed her afterward at Varennes) the acclamations of an admiring, fickle crowd, was circled by a crown. Manon Philipon looked on, and wondered, and detested. Why should there be such a woman as Marie Antoinette to affront her own low station? or why should she not be such a woman? She read Plutarch, dreamt of republics, and imagined a scheme of equality in which the daughter of the engraver should be a greater being than the daughter of the Empress—for this is the secret thought of every soul aspiring after equality. When all is equal, then *I* shall be superior. The age in which Manon lived was big with prodigies. There was no event too monstrous or too miraculous then to be brought forth—there was no vision too strange for fulfillment; and the passionate dream of her heart became a truth. She was married to a man whose position enabled him to assist in carrying out her views; and they were carried out to the farthest limit of her hope. As Madame Roland, the wife of the pedantic, small-minded Girondin, whom the force of circumstances and the feebleness of the men of that time promoted to the King's Cabinet, she tasted all the triumph of a usurped royalty. In her own ascendancy, she felt the full delight of treading down the legitimate monarchs. She relished the heaped-up agonies of their complete abasement, while she applauded in herself the Majesty of Equality. At her house was planned the famous attack on the Tuileries of the twentieth of June, 1792, (under the disguise of a petitioning deputation,) for the intimidation of the King, when a fierce armed multitude invaded the palace with threat and insult—when the King stood at bay during five hours of calm endurance against the pikes and sabers of forty thousand ruffians—when his intrepid consort in another apartment faced a similar host, pale but erect, protecting her children; her fair delicate son, then seven years old, Dauphin of France, sat upon the table, which was the only barrier between his mother and the savage populace. They forced upon his head the

red cap, the sign of carnage, which his father, too, had been compelled to wear. It was too hot and heavy for the child's head, and the Queen watched in silent anguish the drops of sweat which gathered on his brow, and sought to remove them with her soft hand. Santerre—the same Santerre who had headed the revolt of the sixth of October—saw the mother's pain, and was struck with a movement of compassion. He ordered the cap to be taken off the young boy's head, and for this action he received a grateful glance from the Queen. He approached her, and muttered some words that sounded like an apology, and used his utmost efforts to relieve her from the presence of that monstrous army of the faubourgs, of which he was the virtual commander. But the evening was far advanced before their dispersion was effected, and when the King and Queen were reunited after these long hours of suffering, Marie Antoinette fell down exhausted at her husband's feet. Before the turbulent mob, armed with murderous weapons, and blasphemous speech, and roaring for her life as wild beasts roar for their food, she had borne herself as a great majesty, and had met insult with the dignity of fortitude; but now nature would have its way—now, when she tightly clasped her husband's knees, as if in dread of such another parting, her long pent-up anguish told its true history in bitter cries. The King lifted her up, and held her against his heart. Poor man! He wept: "Ah, madame!" he said, "pourquoi faut il que je vous aie arrachée à votre patrie pour vous exposer à l'ignominie d'un parricidal jour?" M. Merlin, a deputy of the Assembly, (and not a humane one,) who was present, shed tears at this sight. "Vous pleurez, monsieur!" said the Queen. "Oui, madame," he replied, "je pleure sur les malheurs de la femme, de l'épouse, de la mère. Mais mon attendrissement ne va pas plus loin; je hais les Rois et les Reines."

On the whole, this insurrection did not answer the expectations of the Girondins. The King had shown a courage which had never before been attributed to him, and whispers went abroad of the pale beauty of the Queen; for in that fierce rabble some hearts knew the throbbings of a mother's love, and their instincts taught them sympathy. There was a reaction among the multitude in favor of their sovereigns which alarmed those who

had set on the attack; but Madame Roland's resolute mind understood triumph better than fear, and she said, as she sucked up greedily all the details of Marie Antoinette's protracted torture: "*Que j'aurais voulu voir sa longue humiliation et combien son orgueil a du souffrir.*"

I do not know any thing much more cruel than this enjoyment of Madame Roland's. It is only the heavy penalty she paid for it that has saved her from universal condemnation. But posterity, whatever her misfortunes, can not absolve her from the guilt of an unrelenting, unjust, and pitiless heart. It is a grief to find such a heart hidden under an external feminine grace; and Madame Roland's inhumanity stands out as a blot upon her sex. There was another famous furious woman in Paris at that time, of a lower grade, and impelled by different motives, but whose actions led to the same end. This was the handsome, half-mad, half-eloquent, Mlle. de Theroigne. Her life was licentious, and her nature was fierce. The misfortune of her youth had depraved her character. In her early girlhood, a young nobleman had seduced her, and left her without comfort or hope to the harsh resentment of her family, an object of contempt, withered and soiled in the opening blossom of her days. So wronged and so wretched, she plunged into total degradation, and she became professionally vicious. Her heart grew hard in her evil courses, and the fever of revenge stirred in her blood. The tumult of the Revolution, the reversal of the whole structure of society, the general work of ruin, offered a distraction to her thoughts, while the promise of revenge upon the whole race of aristocrats gave a new motive to her life. It was well to degrade a virtue such as she had lost, and to offend a modesty such as she had forfeited. It was a solace to hear the Queen insulted, and to say of her: "She is only such another as I am." To imagine such an equality in vice was a consolation, and to make an equality in suffering was a hope. She was a fit instrument for the bad service of a bad cause; and she was prominent in the later days of the Revolution in every scene of horror—her feet forever in a pool of blood. She held the knife of torture at the September massacres. She was busy at the Abbaye in tearing piecemeal with red-hot pincers the living flesh of a young and beautiful girl, nailed to a stake to undergo

the penalty of having an aristocratic lover. She was deaf to pity; her heart acknowledged only one delight, that of murder. She was the idol of the mob, whom she knew how to harangue with her loud delirious eloquence; and she was the leader of bands of women not less ferocious than herself, who stormed Versailles and the Tuileries, and hurled at a noble Queen the vile epithets of their own vile trade. She was a fit agent for such a man as Marat; but not only Marat welcomed her service; and from the days of the fifth and sixth of October she was a powerful officer in the march of revolt. It was not till after the fall of the Girondins that she fell; not till Paris had grown giddy with the sight of blood, and knew no longer whose to demand—not till each party had fallen victim to the other—not till she had met again the man who first betrayed her, and he had basely begged of her a shelter from pursuit, and she had savagely denied it, and he had perished among the victims of September—not till she was steeped soul and body in the blood of the innocent—not till she had led troops of young children to dance in triumph round the agonies of the slowly dying—not till she had presided at the infliction of the last outrages on pious nuns and gentle novices—did her own dark day of retribution come, when a troop of furies, whose malignity hers had so often quickened to its work, dragged her from her carriage, objecting—with some show of justice, I think—to that sign of inequality and luxury, stripped her of all her clothes, and flogged her in her nakedness on the great public walk of the Tuileries Gardens. After this treatment, which, horrible as it was, fell short of the barbarities so often inflicted by her hand, her frenzy became insanity, and she passed the rest of her life within the walls of a mad-house.

On the whole, no doubt, women are more impulsive, less reasonable, easier to excite, more frequently swayed by personal partialities, narrow jealousies, and irritated self-love, than men; for this reason, whether the fact be due to the weakness of their nature or the inferiority of their education, they are less fitted to take part in public life. Their partial views fit them ill for a just regard to the general welfare; and the great influence they have exercised over the politics of France has been a misfortune to that country. If in the ferment of the State their voice be ever heard,

it should be in the soft appeal for mercy, never in the cry for vengeance. For nature is forced, her whole system is subverted, when the gentle pity of a woman is cast off, and then feebleness becomes unrestrained fury. But in the general intoxication of the French Revolution, not women alone were acted upon in the most important matters by petty rancor, mean personal affronts, and a base vanity; few of the men of the Girondin party had much better motives; and the most conspicuous among the revolutionists, by his name and title, was, in the beginning of the movement, alienated from the Court by resentments of a very puerile description. This was the Duke of Orleans, who, at the Queen's first introduction to the French Court, rivaled the Count d'Artois, as I have already said, in the devotion he paid to her. An offense, quite unintentional on her part, turned his regard to anger. In the year 1775, the young Archduke Maximilian of Austria, then fourteen years of age, Marie Antoinette's brother, arrived at Paris, traveling *incognito*, under the title of Count of Burgau. Marie Antoinette, who had seen none of her own family since her departure from Vienna, welcomed him with a transport of joy. She could hardly bear his absence for a moment, as if fearing to lose him quite; and the first days succeeding his arrival were passed by him at Versailles almost exclusively in his sister's company.

These hours of domestic pure delight were stolen from the throne and its ceremonials. They seemed innocent, but they gave umbrage. The Queen, young and inexperienced, was not aware of the etiquette of the French Court, which required that the Archduke should pay the first visit to the French Princes of the blood. The Princes, finding that he did not pay them this expected compliment, translated his ignorance into a voluntary act of contempt, and imputed it to the inordinate pretensions of the House of Austria. The Archduke, they said, was bent on receiving the first visit, but his pride should not be gratified; and they held themselves aloof, as if unconscious of his existence. It was now the Queen's turn to feel aggrieved. She had thought that these Princes would be eager to show respect and kindness to her brother. She had imagined them presiding over entertainments in his honor, and rivaling each other in efforts to please him. She ex-

pressed to the Count de la Marck her astonishment at their coldness.

Unluckily the Count, also an Austrian by birth, was not better instructed in Court etiquette than the Queen herself. He saw her distressed, and his sympathy went with her. The day after this interview he requested another, in order to communicate to her an idea which suggested itself to him. He proposed to invite the most distinguished of the young French nobility to give a banquet to the Archduke, at which the Count d'Artois should preside. The Queen was gratified, and the thing was done. It was a blunder. This entertainment added to the offense of those already too much offended; and the Duke of Orleans, who of all the Princes had felt most stung by the supposed slight, was now provoked to serious resentment. On the other hand, the Queen, never good at dissembling, betrayed her displeasure with him at her subsequent receptions; and, as it generally happens in misunderstandings of this kind, her altered manner reacted upon him; and, says De la Marck, "On le vit constamment depuis cette époque saisir avec empressement toutes les occasions de blâmer les démarches de la Reine."

The Queen was too indifferent to the damage that the anger of such a man might do her; and the King, naturally discourteous, was especially cold to this cousin of his; for he was offended by his affectations of Anglicism, and by the immorality of his life. A little flattery and promotion would have secured his adherence; but instead of that, the Duke's self-love was wounded on every possible occasion by the Court, till the irritation of his feeble character became an itching irresistible impulse to revenge. He was not a strong man in any way: his capacity was narrow, his conversation was trivial, his thoughts were low; but unhappily it is easier to work evil than good; and a powerful instrument for harm may be constructed out of a seemingly insignificant tool. The Duke might well appear an inefficient support; but the throne was in that staggering condition when the removal of any the smallest prop was dangerous, and when one more blow struck at it might be fatal.

When the Duke in his first offense gave way to his sullen humor by encouraging lampoons, and propagating shameless slanders against the Queen, whom he had

once held dear, he would no doubt have shuddered at the intimation of those sufferings with which he afterward assisted to load her weary life. It would have been impossible to him then to think that he would one day look out from his palace window to applaud the ghastly procession, of which Lamballe's murder was the triumph, as it moved on from its wicked work in front of the Queen's prison; or then to believe that he would one day mount the steps of the Revolutionary tribunal to vote for the execution—the summary execution (pronouncing even against the requested respite of three days) of the King, his cousin. But he came to this: throwing himself into the arms of the Republican party, they bent him to their own uses. They disliked and despised him, but they saw good policy in retaining him on their side, and they kept him till his service was ended, and then cut off his head. And so his base life came to a base conclusion. But his progress in crime was not without interruption. There was a moment of halt after the capture of the royal family at Varennes, when his heart was open to their affliction; and on his return from his mysterious mission in England, it was with the intention of reconciling himself to the King that he repaired to the Tuileries. Here the King was ready to receive him with cordiality, for his nature was forgiving, but, with his usual indolence, he omitted to give any instructions to his officers and attendants; and they, exasperated by the wrongs of their master, and regarding Orleans as one of his worst enemies, rashly insulted him. They greeted him with loud contempt, hissing, and even spitting at him. His ill blood was stirred; the old sore bled again. He did not pause for question—he did not penetrate to the King's presence—but turned his back upon the palace forever, to enter the Jacobin Club, and thenceforth to join in every excess of the Jacobin party.

Some very interesting details relating to the position of the Duke of Orleans at this period are given in the memoir, published in the year 1859, of Mrs. Dalrymple Elliot. She was one of the most beautiful women in Paris at this time, (her beauty has been immortalized by Gainsborough,) and she was an Englishwoman; but her life was not so fair as her face; evil influences at an early age led her into the ways of corruption; and she was one of the many mistresses of this Duke of Or-

leans. She had, however, redeeming virtues. She had great compassion and courage, and during the Reign of Terror her life was frequently risked voluntarily in the effort to deliver wretched victims from death. Her narrative is valuable, simple, unaffected, genuine, and hardly so well known as it deserves to be. The extract which follows here gives a curious painful picture of the Duke's position at the close of the great tragedy:

"17th January, '93. — I had seen little of the Duke of Orleans for some time. On my asking him what he now thought of the wicked trial which was going on, and saying that I hoped he did not go near such vile miscreants, he replied that he was obliged to go, as he was a deputy. I could not help saying: 'I hope, Monseigneur, that you will vote for the King's deliverance.' 'Certainly,' he answered, 'and for my own death.' I said: 'Monseigneur, you will not go to the convention on Saturday; pray don't.' He said, 'that he certainly would not go, that he never had intended to go,' and he gave me his sacred word of honor, that though he thought the King had been guilty by forfeiting his word to the nation, yet nothing should induce him, being his relation, to vote against him. . . . On the Saturday, at about ten o'clock, the sad and fatal list arrived with the King's condemnation, and with the Duke of Orleans' dishonor. I never felt such horror for any one in my life as I did at that moment at the Duke's conduct. We were all in deep affliction, even poor Biron, who was a Republican, was almost in a fit. A young man who was the Duke's aide-de-camp tore off his coat and flung it in the fire, saying that he should blush ever to wear it again. . . . Every place seemed dreary and bloody to me. I could not sleep. The image of the innocent King was constantly before me. Till that moment, I had always flattered myself that the Duke of Orleans was misled. Now, all illusion was over. I even threw the things he had given me, which I had in my pockets and in my room, out of it, not daring to stay near any thing that had been his."

Six weeks after this event, Mrs. Elliot was seriously ill; agitation of mind was the cause of her illness. The Duke of Orleans sent her a letter, entreating her to see him when she was well, saying that all the world had given him up, and that his unhappy situation might make her forgive him, if she thought he had done wrong. She consented to see him.

"He was dressed in deep mourning, looked embarrassed, and very grave. I was nearly fainting, and he made me sit down, and himself gave me a glass of water. 'You look ill,' he said; 'but I hope you are quite recovered

from your cold.' I told him that his black coat made me remember terrible events, and that I supposed he was, as I was, in mourning for the King. On this he forced a smile, and said: 'Oh! no; I am in mourning for the Duc de Penthièvre, my father-in-law.' 'I suppose,' I said, 'that the King's death has hastened this, or perhaps the manner of his cruel trial, and your having voted for his death.' Here I burst into tears, and said: 'I dare say that he died broken-hearted, and so shall I; but you, Monseigneur, will die, like the poor King, on the scaffold.' 'Good God!' said he, 'what a situation you are in! I am sure I should not have made you come here, had I had an idea of all this. The King has been tried, and he is no more. I could not prevent his death.'

"I then replied: 'But you promised that you would not vote.' On this he got up, observing: 'This is an unpleasant subject. You can not, must not, judge for me. I know my own situation; I could not avoid doing what I have done. I am perhaps more to be pitied than you can form an idea of. I am more a slave of faction than anybody in France, but from this instant let us drop the subject. Things are at their worst.'"

This picture, drawn by the hand of a simple woman, seems to me worthy of the greatest masters of art; and in the pages of Scott, or even of Shakspeare, it would be difficult to find a better delineation of the veiled remorse and secret struggles of a cowardly nature wading in guilt, than in this quiet narration of a dialogue which actually took place. Louis Philippe, Duc de Chartres, sometimes called Young Egalité, (but he never deserved so bad a name,) had just left France with General Dumouriez, when Mrs. Dalrymple held her last interview with Philippe Egalité. He was then no longer even nominally a free agent, and arrived at her house under the superintendence of two gendarmes. He took from his pocket a letter written by the young Duke on the eve of his departure, expressing just indignation against his father for the course he had taken at the King's trial. This letter the vindictive Egalité never could forgive, and he burnt it in Mrs. Elliot's presence, saying that he owed to his son's emigration with Dumouriez the unwelcome company he was in. Not long after this he was led to the scaffold, as Mrs. Elliot had predicted, an object of universal scorn. His vengeance had brought him no peace, his sacrifice for popularity had brought him no profit; his vote for the King's death had been heard with horror. And when he had made his great renunciation, and forfeited

GOING ON.

is here his hereafter, and staked his science for his paltry life, he had perished, by the muttered groans and averted looks of his audience, that he had not gained the favor he sought for. Even the most ruthless of his associates recoiled

from this treason of the blood, and at his last hour he saw himself unhonored, unpitied, unlamented; rejected by every faction in France, and execrated by all mankind.

From Fraser's Magazine.

G O I N G O N .

THERE are many things of which you have a much more vivid perception at some times than at others. The thing is before you; but sometimes you can grasp it firmly, sometimes it eludes you mistily. You are walking along a country path, just within hearing of distant bells. You hear them faintly; but all of a sudden, by some caprice of the wind, the sound is borne to you with startling clearness. There is something analogous to that in our perceptions and feelings of many great facts and truths. Commonly, we perceive them and feel them faintly; but sometimes they are borne in upon us, we can not say how. Sometimes we get vivid glimpses of things which we had often talked of, but which we had never truly discerned and realized before. And for many days it has been so with me. I have seemed to feel the lapse of time with startling clearness. I have no doubt, my reader, that you have sometimes done the like. You have seemed to actually perceive the great current with which we are all gliding steadily away and away.

Rapid movement is a thing which has a certain power to disguise itself from the person who is involved in it. Every one knows that if you are traveling in an express train at sixty miles an hour, you do not feel the speed nearly so much as the man does who stands beside the track and sees the great mass sweep by like a hurricane. Have you ever thought it would be curious if we could for a few minutes be made sensible of the world's motion? Here we are, tearing on through space at an inconceivable speed. We do not feel

it, of course; we could not stand it. I should like to feel it for half a minute—not for more.

But it is not *that* motion we are to think of at present. No special illumination has been accorded to me, making me feel that fact which we all know without feeling. But there is another rapid motion, common to all of us as is the motion of the earth which bears us all. There is a great current bearing us along and all things about us, which is commonly not much felt. But it seems to me that for several weeks I have been actually feeling it. I have been excessively busy; living in a great pressure and hurry of occupations. In that state, my reader, you feel Sunday after Sunday return with a rapidity which takes away your breath; and let me say that if you have to provide one sermon, and still more if you have to provide two, against the return of each, you will in that fever of work and haste come to look from one Sunday to the next till you will come to find them flying past you like the quarter-mile posts on a railway. You will find that you can hardly believe walking into church on Sunday morning that a week has gone since the last Sunday. And in such a time you will realize much more distinctly than you usually do that all things are going on—drifting away—all in company. These April days are taking life away from you, from me from prince and peasant. There is a thing at least which all human beings are using up at exactly the same rate. We can all get out of the day just twenty-four hours, neither more nor less. One

may live at the rate of a hundred pounds a year, and another at the rate of a hundred thousand; but each expends his time at the rate of three hundred and sixty-five days a year. Whatever other differences there may be between the lots of human beings, we are all drifting on with the current of time, and drifting at the same rate exactly. And we are certainly drifting. We are never quite the same in two successive weeks. One Sunday is not like the last. Look closely, and you will see that there is a difference—slight perhaps, but real. Each time you sit down to your *Saturday Review*, you feel there is a difference since the last time. Still more do you feel it as you read the returning *Fraser*, coming at the longer interval of a month. Things never come back again quite the same. And indeed in Nature there is a singular dislike to uniformity. If to-day be a fine day, look back; it is almost certain that this day last year was rainy. If to-day you are in very cheerful spirits, it is probable that on the corresponding day in the year that is gone you were very dull and anxious. No doubt human beings sometimes successfully resist Nature's love of variety. Some men have an especial love for having and doing things always in the same way. They walk on special days always on the same side of the street; perhaps they put their feet, like Dr. Johnson, on the same stones in the pavement. They dress in the same way year after year. They maintain anniversaries, and try to bring the old party around the table once more, and to have the old time back. But we can not have things exactly over again. There is a difference in the feeling, even if you are able precisely to reproduce the fact. And indeed the wonder is that things are so much like, as they are to-day, to what they were a year ago, when we think of the innumerable possibilities of change that hang over us. Yes, we are drifting on and on, down to the great sea. Sit down, my friend, to write your article. You have written many. The paper is the same; the table on which you write is the same; the inkstand is the same; and the pen is made by the same mender that made all the rest. And it is possible enough that when the article is printed at last, your readers will say that it is just the same thing over again; but it is not. To your feeling this day's work is quite different from the work of all preceding

days. There is an undefinable variation from whatever was before. And as weeks and months go on, there come to be differences which some may think more real than any in the comparatively fanciful respect of feeling. The hair is turning thin and gray; the old spirit is subdued. There are changes in taste, in judgment, in feeling, in many ways. Yes, we are all Going On.

I wish to stop. There is something awful in this perpetual progression. If the current would slacken its speed, at least, and let one quietly think for a little while. Let us sit down, my friend, by the wayside. We are old enough now to look back, as well as to look round; and to think how life is going with us, and with those we know. We are now in the middle passage: perhaps farther on. And if we are half-way in fact, assuredly we are far more in feeling. Though a man live to seventy, his first thirty-five years are by far the longer portion of his life.

Let us think to-day, my reader, of ourselves and of our friends; and of how it is faring with us as we go on.

It is a curious thing now, when we have settled to our stride, and are going on (in most cases) very much as we probably shall go on as long as we live, to compare what we are, with what we promised at our entrance on life to be. You remember people who began with a tremendous flourish of trumpets: people of whom there was a vague impression, more or less general, that they were to do great things. Sometimes this impression was confined to the man himself. Not unfrequently it was shared by his mother and his sisters. It occasionally extended to his father and his brothers. And in a few cases, generally in these cases not without some reason, it prevailed in the mind of his fellow-students. And it may be said, that a belief that some young lad is destined to do considerable things, if it be anything like universal among his college companions, must have some foundation. A belief to the same effect with regard to any young man, if confined to two or three of his intimate companions, is generally quite groundless; and if it exist only in the heart of his mother and of himself, it is quite sure to be absurd and idiotic. We can all probably remember individuals who, without any reason apparent to onlookers, cherished a most extraordinarily high opinion of themselves;

and one which was not at all taken down by frequently being beaten, and even distanced, in the competitions of college life. Such individuals, for the most part, indulged a very bitter and malicious spirit toward students more able and successful than themselves. I wish I could believe that modesty always goes with merit. I fear no rule can be laid down. I have beheld inordinate self-conceit in very clever fellows, as well as in very stupid ones. And I have beheld self-conceit developed in a degree which could hardly be exceeded, in individuals who were neither very clever nor very stupid, but remarkably ordinary in every way. Let me here remark, that I have known the most enthusiastic admiration excited in the breasts of one or two individuals by a very commonplace man. I mean admiration of his talents. And I beheld the spectacle with great wonder, not unmingled with indignation. I can quite understand man or woman feeling enthusiastic admiration for a great and wonderful genius. I can feel that warm admiration myself. And I can imagine its existence in youthful minds, even when the genius is dashed with great failings, or is of a very irregular nature. But the thing I wonder at, and can not understand, is enthusiastic admiration professed and felt for dreary commonplace. I am not in the least surprised when I hear a young person, or indeed an old one, speaking in hyperbolic terms of the preaching of Dr. Caird. I have heard it myself, and I know how brilliant and effective it is. But I really look with wonder at the young woman who professes equally enthusiastic admiration of the sermon of Dr. Log. I have heard Dr. Log preach. I could not for my life attend to his sermon. It was horribly tiresome. There was not in it a trace of pith or of beauty. It approached to the nature of twaddle. I was awestricken when I heard it described in rapturous phrases. I recognized a superior intelligence. I thought to myself, reversing Mr. Tickell's lines: "You hear a voice I can not hear; you see a hand I can not see." It is right to add, that the enthusiastic appreciators of Dr. Log were very few in number, and that they appeared to me nearly as stupid as Dr. Log himself.

But leaving Dr. Log and his admirers, let me say that very clever fellows, very stupid fellows, and very commonplace fellows, have started in life with a great flourish of trumpets. The vanity of many

lads, leaving the university, is enormous. They expect to set the Thames on fire; to turn the world upside down. A few takings down bring the best of them to modesty and sense. And the men for whom the flourish was loudest do sometimes, when all find their level, have to rest at a very low one. Many painful mortifications and struggles bring them to it. Oh! if talent and ambition could always be in a man, in just proportion! But I have known the most commonplace of men, with ambition that would have given enough to do to the abilities of Shakespeare. And we may perhaps say, that no one who begins with a great flourish ever fails to disappoint himself and his friends. He may do very well; he may do magnificently; but he does not come up to the great expectations formed of him. I was startled the other day to hear a certain man named as a failure, who has attained supreme eminence in his own walk in life, and that a conspicuous one. I said, No: he is any thing but a failure: he has attained extraordinary eminence: he is a great man. But the reply was: "Ah! we expected far more! We thought he would leave an impression on the age, and he has certainly not done that; while it seems certain he has done the best he is ever to do." But look round, my friend, and think how the world goes with those who set out with you. They are generally, I suppose, jogging on humbly and respectably. The present writer did not in his youth live among those from whom the famous of the earth are likely to be taken. One or two of the number have risen to no small eminence; but the lot of most has circumscribed their ambition. It is not in the Senate that he can look to find many of the names of his old companions. It is not likely that any will be buried in Westminster Abbey. The life of two or three may perhaps be written, if they leave behind them a warm friend who is not very busy. It does not matter. The nonsense has been taken out of us by the work of life. And on the whole, we are going creditably on.

It is worthy of notice, that things which at the beginning were very bad, may be made good by a very small change wrought upon them. You see this in human beings, as they go on through life. You remember, I have no doubt, how various passages in the earlier writings of Mr. Tennyson, on which the *Quarterly Review* savagely fixed,

at their first publication, and which Mr. Tennyson's warmest admirers must admit to have been in truth very weak, affected, and ridiculous, have by alterations of wonderfully small amount been brought to a state in which the most fastidious critic could find no fault in them. Just a touch from the master-hand did it all. You have in a homelier degree felt the same yourself, in correcting and re-writing your own crude and immature compositions. Often a very small matter takes away the mark of that Beast whose name shall not be mentioned here. I know a very distinguished preacher, really a pulpit orator, whose manner at his outset was remarkably awkward. No doubt he has devoted much pains to his manner since; though his art is high enough to conceal any trace of art. I heard him preach not long since, and his manner was singularly graceful, while yet there was no great change materially. You have remarked how the features of a girl's face, very plain at fourteen, have at twenty grown remarkably pretty. And yet the years have wrought no very great change. The face is unquestionably and quite recognizably the same; yet it has passed from plainness into beauty. And so, as we go on in life, you will find a man got rid of some little intrusive folly which just makes the difference between his being very good and his being very bad. The man whose tendency to boast, or to exaggerate, or to talk thoughtlessly of others, made him appear a fool in his youth, has corrected that one evil tendency, and lo! he quite altered—he is all right; he is a wise and good man. You would not have believed what a change for the better would be made by that little thing. You know, I dare say, how poor and bad are the first crude thoughts for your sermon or your article, thrown at random on the page. Yet when you have arranged and rounded them into a symmetrical, and accurate, and well-considered composition, it is wonderful how little change there is from the first rude sketch. Look at the waste scraps of paper before you throw them into the fire, and you will find some of your most careful and best sentences there, word for word. You have not been able to improve upon the way in which you first dashed them down.

There is a sad thing which we are all made to feel, as we are going on. It is,

that we are growing out of things which we are sorry to outgrow. The firmest conviction that we are going on to what is better, can not suppress some feeling of regret at the thought of what we are leaving behind. When I was a country parson, I used to feel very sorry to see a laurel or a yew growing out of the shape in which I remembered it; and which was associated with pleasant days. There was a dull pang at the sight. I remember well a little yew I planted with my own hand. It looks like yesterday since I held its top, while a certain man filled in the earth, and put the sod round its stem. For some time it appeared doubtful if that yew would live and grow; at last it was fairly established, and it began to grow vigorously the second year. For a year or two more, it was a neat, shaggy little thing; but then it began to put out tremendous shoots, and to grow out of my acquaintance. I felt I was losing an old friend. Many a time I had stood and looked at the little yew; I knew every branch of it; and always went to look at it when I had been a few days away. No doubt it was growing better; it was progressing with a yew's progress; I was getting a new friend better than the old one; yet I sighed for the old one that was gradually leaving me. You do not like to think that your little child must grow into something quite different from what it is now; must die into the grown-up man or woman; must grow hardened to the world, and cease to be lovable as now. You would like to keep the little thing as it is; when it climbs on your knee, and lays a little soft cheek against your own. Even in the big girl of seven, that goes to school, you regret the wee child of three that you used to run after on the little green before your door; and in the dawn of cleverness and thought, though pleasant to see, still you feel there is something gone which you would have liked to keep. But it is an inevitable law, that you can not have two inconsistent good things together. You can not at once have your field green as it is in spring, and golden as it is in autumn. You can not at once live in the little dwelling which was long your home, and which is surrounded by the memories of many years; and in the more beautiful and commodious mansion which your increasing wealth has been able to buy. You can

not at once be the mercant prince, wealthy, influential, esteemed by all, though gouty, aging, and careworn; and the hopeful, light-hearted lad that came in from the country to push his way, and on whose early aspirations and struggles you look back with a confused feeling as though he were another being. You can not at the same time be a country parson, leisurely and quiet, living among green fields and trees, and knowing the concerns of every soul in your parish; and have the privilege and the stimulus of preaching to a congregation of educated folk in town. Yet you would look round in silence and regret, when you look for the last time upon the scenes amid which you passed some considerable part of your life; even though you felt that the new place of your labors and your lot were ever so much better. And though you know it is well that your children should grow up into men and women, still you will sometimes be sorry that their happy childhood will pass so swiftly and so completely away; that it must be so entirely lost in that which is to come after it; that even in the healthy maturity of body and of mind, there is so little that recalls to you the merry little boy or girl you used to know. Yes; we may have got on to something that is unquestionably better; but still we miss the dear old time and way. It is as with the emigrant, who has risen to wealth and position in the new world across the sea; but who often thinks, with fond regret, of the hills of his native land; and who, through all these years, has never forgotten the cottage where he drew his first breath, and the little church-yard where his father and mother are sleeping. Yes; you little man with the very curly hair, standing at that sofa turning over the leaves of a large Bible with pictures; stay as you are, as long as you can! For I may live to see you grow into something far less pleasant to see; but I shall never live to see you Lord Chancellor; though that distinguished post (it is well known) is the natural destination of a Scotch clergyman's son.

There is something rather awful implied in going on. Its possibilities are vast; you may yet have greatly to modify your opinion of any man who is still going on. The page is not finished yet; and it may be terribly blotted before it is done with. But the man who is no

longer going on; the man who has finished his page and handed it in; is fixed and statuesque. There he is, forever. You may finally make up your mind about him. He can never do any thing to disappoint you now. But very many men do live on, just to disappoint. They have done their best already; and they are going on producing work very inferior to what they once did, and to what we might expect of them. You go and hear a great preacher; not upon a special occasion, but in his own church upon a common Sunday. You have read his published sermons, and thought them very fine; some sentences from them still linger on your ear. Unhappily, he did not stop with these fine things. He is going on still; and what he is turning off now is quite different. There is little to remind you of what he was. Your lofty idea of that great and good man is sadly shattered. No doubt, this is not always so. There are men who go on through life; and go on without deterioration. There are men who are always themselves; always up to the mark. But, for the most part, going on implies a great falling off. Think of Sir Walter Scott's last novels. Think of Byron's last poetry. Compare *The Virgin Widow* with *Philip Van Artevelde*. Think of the late productions of the author of *Festus*. Think of the last squeezings from the mind of Dr. Chalmers. Think of the recent appearances, intellectual and moral, of Mr. Walter Savage Landor. Think how roaring Irish patriots have become the pensioners of the Saxon, after having publicly sworn never to touch the alien coin. Think how men who have bearded the tyrant in their youth have ended in contented toadyism. We are never perfectly safe in forming a judgment of any man who is still going on; that is, of any living man. We shall not call him good, any more than happy, till we have seen the last of him. His very ending may be enough to blight all his past life. You can not as yet settle the mark of a man who is still painting pictures, still publishing poems, still writing books, still speaking in Parliament, still taking a prominent part in public business. He may possibly rise far above any thing he has yet done. He may possibly sink so far below it, as to lower the general average of his entire life. As regards fame, the right thing is an end like Nelson's. He ended at his best; and ended

definitively. Even Trafalgar would have been overclouded, if the hero had still kept going on. Think of him perhaps coming back; being made a duke; evincing great vanity; trying to become a leader among the Peers; and showing his lack of business aptitude and of sound judgment in politics; coming to be occasionally hissed about the streets of London; getting involved in discreditable tricks to gain office. Now, Nelson might have done none of these things. But I believe any one who reads his life will feel that he might have done them all. And was it not far better that the weak, but great man; the true hero; the warm-hearted, lovable, brave, honest Admiral, should be taken away from the petty and sordid possibilities of Going On? that it should be made sure he should never vex or disappoint us? that he should die in a blaze of glory, and leave a name for every Briton to cherish and to love? There are living men, concerning whom we might regret that they are still going on. They can not rise above their present estimation; they may well sink below it. It would be a great thing if some means could be devised, by which a man might stop, without dying. A man might say, after having done some difficult and honorable work, reaching over a large portion of his life: "Now, I stop here. I take my stand on what I have done; judge of me by that. I must still go on breathing the air as before; but I fear I shall let myself down; so don't inquire about me any farther." We all know that great and good men have sometimes, in the latter chapters of their life, done things on which we can but shut our eyes, and which we can but strive to forget. It seems quite certain that Solomon, albeit the wisest of men, became a weak old fool in his latter days; nor does the only reliable history say any thing of final repentance and amendment. And silly or evil doings early in life may be effaced from remembrance by wise and good doings afterward; while silly and evil doings in the last stage of life appear to stamp the character of it all.

It is this thought which sometimes makes the recollection that we are still going on, weigh heavily on one. There is no saying how the page of our life may be blotted before it is finished; and you must let me say, my friend, that the wise man will stand in great fear and suspicion of

himself; and will very earnestly apply for that sacred influence which alone can hold him right to the end, where alone it is to be found. There are many things to make one thoughtful, as we remember how we are going on; but the great thing (as regards one's self) is, after all, the sight of the gloom before us, into which we are advancing day by day; not seeing even a step a-head. And to *that* may be added the occasional examples which are pressed upon us in the case of others, who once seemed very much like ourselves, of what human beings may come to be. And that which man has done, man may do. I see various things that are worthy of note, as I look round on the procession of the human beings I knew and remember, and think what comes as we go on. I see some who are rather battered and travel-stained. The greatness of the way is beginning to tell. I see some who look somewhat worn and jaded. There are little physical symptoms of the wear of the machine. The hair of certain men is going, or even gone. The teeth of some are not complete, as of yore. On the whole, I trust, we are gaining. I do not think there is any period of life that one would wish to live over again; no period, at least, of more than a very few days. There are wrecks, no doubt: some who broke down early, and have quite disappeared, one does not know where; and among these more than one or two whose promise was of the best.

Thinking of this one day, I was walking along a certain street, and came to a place where it was needful to cross. A carriage stopped the way, if that indeed can be called a carriage which was no more than a cab. And my attention was attracted by the cab-horse, which was standing close by the pavement. He was a sorry creature; but, as you looked at him, there was no mistaking the thoroughbred. There was the light head, once so graceful; the dilated, sensitive nostrils were still there, and the slender legs. But the poor legs were bent and shaky; the neck was cut into by the collar; the hair was rubbed off the skin in many places; and the sides were going with that peculiar motion which indicates broken wind. Here was what the poor horse had come to. At first doubtless he was a graceful, cheerful creature, petted and made much of in his youth. Probably he proved not worth training for a race-horse; and a thoroughbred without sufficient bone and muscle is

very useless for practical purposes; though it may be remarked that a thorough-bred with sufficient bone and muscle is the best horse for every kind of work except drawing coals or beer. So the poor thing became a riding-hack, and having fallen a few times was sold for a cab-horse. And it was plain that for many days he had been poorly fed, and hardly worked; and that now the cab proprietor was taking all he could out of him, before giving him over to the knacker, to be made into sausages. It is a popular delusion that the last stage in a horse's existence is to go to the dogs. There are some districts in which he goes to the pigs; and others in which he ends by affording nutriment, in a disguised form, to human beings. I am no alarmist, and I believe horse-flesh is quite salutary. All I have to add is, that persons having an antipathy to that article of food, had better inquire where their bacon was fed, and had better keep a sharp eye upon their sausages.

This, however, is a digression from a sad reflection. That poor cab-horse suggested various human beings whom I once knew. We have all known clever and promising youths who became drunken wrecks, and who deviated into various paths of sin, shame, and ruin. I laid down my pen when I had written that sentence, and thought of four, five, six, who had ended so, thinking of them not without a tear. Some were the very last you would have expected to come to this. There are indeed men whose career as youths is quite of a piece with their after-career of shame; but my early friends were not such as these. I can think of some, cheerful, amiable, facile in the hand of companions good or bad, who bade fair for goodness and happiness, yet who went astray, and who were wrecked very soon. I knew of one, once a man of high character and good standing, who had to become as one dead, and who was long afterwards traced, a sailor in distant seas. He had a beautiful voice; and I have heard that it was fine to hear him singing on the deck by moonlight as he kept his watch. Poor wretch, with what a heavy heart!

The change that passes upon one's self as we go on through life, comes so gradually through the wear of successive days, that we are hardly conscious how perceptibly we are getting through all that we have to get through here. We fancy, quite hon-

estly, that we do not look any older in the last ten years, and that we are now just the same as we were ten years since. We fancy that, intellectually and morally, we are better; and physically just the same. People whose character and history are commonplace, at least fancy this in their more cheerful hours. But sometimes it comes home to us what a change has passed on us, perhaps in not a very long time. You will feel this especially in reading old letters and diaries; the letters you wrote and the diary you kept long ago. You probably thought that your present handwriting is exactly the same as your handwriting of ten years since; but when you put the two side by side, you will see how different they are. And in the perusal of these ancient documents, it will be borne in upon you how completely changed are the things you care for. The cares and interests, the fears and hopes, of the old days, are mainly gone. You have arrived at quite different estimates of people and of things; and if you be a wiser, you are doubtless a sadder man. And when you go back to the schoolboy spot, or to the house where you lived when you were ten years old, it will be a curious thing to contrast the little fellow of that time, with your own grave and sobered self. And you will do so the more vividly in the presence of some well-remembered object, which has hardly changed at all in the years which have changed you so much. It is a commonplace; but commend me to commonplaces for reaching the common heart: the picture of the aged man, or even the man in middle age, standing beside the tree of the river by which he played when he was a little child. The hills, the fields, the trees around are the same; and there is he, so changed! You remember Wordsworth's beautiful ballad, in which the old school-master is lying beside the fountain, by which he was used to lie in his days of youthful strength: you remember the same old man, looking back from a bright April morning, to another April morning exactly like it, but past for forty years. We may well believe, that there is not a human being but knows the feeling. It is some little thing in our own history that we remember; but it has touched the electric chain of association, and wakened up the past. There is a rude song current among the coal-miners of the north of England, in which an old man is standing by an old oak-tree, and speaking

to that unchanged friend of the change that has passed upon himself; and though the chorus, recurring at the end of each verse, is not so graceful as the lines which Wordsworth gives to Matthew, the thought is exactly the same. The words are: "Sair failed, hinny, sair failed now: sair failed hinny, sin I kened thou." But of all the poems which contrast the much-changed man and the little-changed tree, I know of none more touching than one I lately read in an American magazine. It is called *The Name in the Bark*. Let me say, in passing, that it seems hard to understand why the poetry in the magazine I mean (it is the *Atlantic Monthly*) is so incomparably better than any we ever find in any English magazine. Here is a part of the poem:

"The self of so long ago,
And the self I struggle to know,
I sometimes think we are two—or are we shadows of one?
To-day the shadow I am,
Comes back in the sweet summer calm,
To trace where the earlier shadow flitted awhile
in the sun.

"Once more in the dewy morn,
I trod through the whispering corn:
Cool to my fevered cheek soft breezy kisses
were blown:
The ribboned and tasseled grass
Leaned over the flattering glass;
And the sunny waters trilled the same low
musical tone.

"To the gray old birch I came,
Where I whittled my schoolboy name:
The nimble squirrel once more ran skipingly
over the rail:
The blackbirds down among
The alders noisily sung,
And under the blackberry-trees whistled the
serious quail.

"I came, remembering well,
How my little shadow fell,
As I painfully reached and wrote to leave to the
future a sign:
There, stooping a little, I found
A half-healed, curious wound—
An ancient scar in the bark, but no initial of
mine!"

I shall not add the verses in which the poet wisely moralizes on this instance how fast the traces we leave behind us pass away. Is it because I can remember how my little shadow fell many years since, that the last-quoted verse touches me as it does? We cast a different shadow now, my friend, from that little one we remem-

ber well; and it will not be very long till the shadows that fell and the substance that cast them shall have left here an equal trace.

Yes, my readers, we are all changed, as we are going on, from what we used to be. And it is no wonder we are changed. The wonder is that we are not changed a great deal more. How much hard work we have done; how much care, trouble, anxiety, disappointment, we have come through! What painful lessons we have been obliged to learn, every one of us! A great deal of the work we do is merely to serve the purposes of the time, and it leaves no trace; but when the work done leaves its tangible memorial, it often strikes us much; and we wonder to see how fresh and unwearied the man looks who did it all. I have seen the accumulated stock of sermons of a clergyman of more than forty years in the Church. It was awful to see what a vast mass they were. And even when we look not at the work of a lifetime, but at the results of what was no more than part of the work of a few years, we do so with a feeling of surprise that the man who did it was not at the end of his work much changed to appearance from what he was when he began it. Some time since I got back for a short time the prize essays I wrote while at college. They filled a whole shelf, and not a very small shelf. It was awful to look at them. They were all written before the writer was twenty-two. They were great heavy volumes—heavy physically; and intellectually and æsthetically still heavier. I tried to read one, but could not, because it was so tiresome; and I may therefore fairly conclude that no one will ever read them. Yet let me confess, that having arranged them on a lower shelf, I sat down on a rocking-chair immediately in front of them, and looked at them with great interest and wonder. In such a prospect, what could one do but shake one's head and sigh? The essays were all successful, Mr. Snarling. Every one of those prize essays got its prize. It is not in mortification that one sighs, but vaguely in the view of such an immense deal of hard work done to so very small purpose. And when you look at a man advanced in life, whose whole life has been one of hard work, you can not but confusedly wonder to see him looking as he does. To see Lord Campbell walking about at Hart-

rigge, when he had reached the highest place that a British subject can reach—to see the benignant and cheerful face of that remarkable man—and then to think of the tremendous amount of mental labor he had gone through in his long life, was a most perplexing and bewildering sight. When you are shown a ship that has come back from an Arctic voyage, you will generally remark that the ship looks like it; it has a weather-beaten and battered aspect, suggestive of crunching against icebergs and the like. But when you are shown a man whose voyage in life has been a long and laborious one, you are sometimes surprised to find that he looks as fresh and unwearied as if he had done nothing all his life but amuse himself.

I have already said that it is a great blessing that in this world there are such things as *Beginnings and Ends*. It is a blessing that we can divide our way, as we go on, into stages—that we are saved the wearying and depressing effect of a very long uniform look-out. We begin a succession of tasks, we end them, and then we begin afresh. And even those things in which, in fact, there are no beginnings nor ends, have them in our feeling. The unvarying advance of time is broken into days and weeks; and we feel a most decided end on Saturday night, and we make a new start on Monday morning. It must be dreadful for a man to work straight on, Sunday and all other days. I believe it is impossible that any man should do so long. The man who refuses to observe a weekly day of rest will knock his head against the whole system of things, to the detriment of his head.

But even more valuable than this obvious result of the existence of Beginnings and Ends is another. It is an unspeakable blessing that a man who has got himself thoroughly into a mess any where or in any occupation, should be able to get away somewhere else and begin again. If Mr. Snarling, who has quarreled with all his parishioners in his present charge, were removed to another a hundred miles off, I think he would take great pains to avoid those acts of folly and ill-temper which have made him so unhappy where he is. And let me say in addition, that most of us, as we go on, are admitting in our hearts always the imperfection and unsatisfactoriness of our past life. We are every now and then, in thought and feeling, beginning again. Men are every now and

then cutting off the past; and acknowledging that they must start, or (more commonly) that a little while back they *did* start, anew. You occasionally avow to yourself, my reader, though not to the world, that you were a blockhead even two or three years ago. You occasionally say to yourself that your real life begins from this day three years. From that date you think you have been a great deal wiser and better. That course of conduct five years ago; those opinions you held then, that poem, essay, or book you wrote then, you are willing to give up. You have not a word to say for them. But *that* was in a former stage—in a different life. You have begun again since that; you have cut connection with it. You say to yourself: "It may be thirty years since I came into the world; but my real life—the part of my life I am willing to avow and to answer for—began on the first of January, 1860. I cut off all that preceded. I began again then; and as for what I have said and done since then, I am ready (as Scotch folk say) to *stand on the head of it*. It is only in a limited sense that I admit my identity with the individual who before that date bore my name and wore my aspect. I disavow the individual. I condemn him as severely as you can do." Tell me, my reader, have you not many a time done that? Have you not given up one leaf as hopelessly blotted, and tried to turn over a new one—cut off (in short) the preceding days of life and resolved to begin again? Do so, my friend. You may make something of the new leaf, but you will never make any thing of the old one. And whenever you find any human being anxious to begin again, always let him do it, always help him to do it. Don't do as some malicious wretches do, try to make it as difficult and humiliating as possible for him to turn over the new leaf. Don't try to compel him to a formal declaration in words that he sees his former life was wrong, and wants to break away from it; it was bitter enough for him to make that avowal to himself. You will find malicious animals who, if man or child has done wrong, and is sorry for it, and wishes to turn into a better way, will do all they can to prevent the poor creature from quietly turning away from the blurred page and beginning the clean one. If there be joy in heaven over the repenting sinner, it can not be denied that there

is vicious spite over the repenting sinner in certain hearts upon earth. Let us not seek to make repentance harder than it is by its nature. Unhappily there are cases in which neither in fact nor in feeling is it possible to begin again—at least upon an unsullied page. There are many people who never have a second chance. They must go deeper and deeper; they took the wrong turning, and they can never go back. Such is generally the result of crime. There is one sex, at least, with which the one wrong step is irretaceable. And even with the ruder half of mankind, there are some deeds which, being done, shut you in like the spring-lock in poor Ginevra's oak-chest. There is no repassing; and often the irreversible turning into the wrong track was not the result of any thing like crime; often the cause was no more than ill-luck, or some foolish word or doing. What disproportionate punishment often follows on little acts of haste or folly! In the order of Providence folly is often punished much more severely than sin. A young fellow, foolishly thinking to gain the favor of a sporting patron by exhibiting an extraordinary knowledge of the turf and the chase, cuts himself off from the living on which his heart was set. A flippant word, hardly spoken till it was repented, has prejudicially affected a man's whole after-career. Various men, in pique and haste, have made marriages which blighted all their life, and which brought an actual sorer punishment than that with which the law visits aggravated burglary or manslaughter. It is well in most cases to keep a way of retreat. It is well that before entering in you should see if you can get out, should it prove desirable. You must be very confident or very desperate if you cut off the bridge behind you, when in front there is but to do or to die. No doubt a habit of keeping the retreat open is fatal to decision of action and character. There is good, in one view, in feeling that we have crossed the Rubicon and are *in for it*; then we shall hold stoutly on; otherwise, we may be advancing with only half a heart. And there are important cases in which the difference between half a heart and a whole one makes just the difference between signal defeat and splendid victory.

It is to be admitted, my friends, that as we go on, the nonsense is being taken out

of us. You have seen a horse start upon its journey in a very frisky condition, kicking about and prancing; but after a few miles it settles into doing its work steadily. That is the image which to my mind represents our career, going on. The romance has mainly departed. We look for homely things, and are content with them. Once, too, we expected to do great achievements, but not now. We know, generally, our humble mark. Indeed, the question as to the earning of bread and butter has utterly crowded out of our hearts the question as to the attainment of fame. We would not give one pound six and eight-pence for wide renown. We would not give the eight-pence for posthumous celebrity. We know our humble mark, I have said. I mean intellectually. And it is a great comfort to know it. It saves us much fever of competition, of suspense, of disappointment. We can not possibly be beaten in the race of ambition; we can not even injure our lungs or our heart in the race of ambition; because we shall not run it at all. A wise man may be very glad, and very thankful, that he does not think himself a great genius, and that he does not think what he can do very splendid. For if a man thought himself a great genius, he would be bitterly mortified that he was not recognized as such. And if a man thought his sermons or his books very fine, he would be mortified that his church was not crammed to suffocation, instead of being quite pleased when it is respectably filled; and he would be disappointed that his books do not sell by scores of thousands of copies, instead of being joyful that about half the first edition sells, leaving his publishers or himself only a little out of pocket, besides all their time and trouble. I know a man of highly respectable talents, who once published a theological book. Nobody ever bought a copy except himself. But he bought a good many, which he gave to his friends. And then he was extremely pleased that so many copies were sold. Was he not a wise and modest man?

Among other follies, I think that in going on, men, if they have any sense at all, get rid of Affectation. Few middle-aged men, unless they be by nature incurably silly and conceited, try to walk along the street in a dignified and effective way. They wish to get quickly and quietly along; and they have utterly discarded

the idea that any passer-by thinks it worth while to look at them. Generally speaking, they sign their names in a natural handwriting. They do not, as a rule, look very cheerful. They seem, when silent, to fall into calculations, the result of which is not satisfactory. The great tamer of men is, doubtless, the want of money. *That* is the thing that brings people down from their airy flights and romantic imaginations; especially when there are some dependent on them. You may dismiss the very rich, who never need think and scheme about money, and how it is to be got, and how far it can be made to go, as an inappreciable fraction of the human race. Care sits heavy upon the great majority of those who are going on. You know the anxious look, and the inelastic step, of most middle-aged people who have children. All these things are the result of the want of money. Probably the want of money serves great ends in the economy of things. Probably it is a needful and essential spur to work, and a useful teacher of modesty, humility, moderation. No man will be blown up with a sense of his own consequence, or walk about fancying that he is being pointed out with the finger as the illustrious Smith, when (like poor Leigh Hunt) he fears lest the baker should refuse to send him bread, or that the washerwoman should impound his shirts. It is a lamentable story that is set out in the latter portions of the *Correspondence* of that amiable but unwise man. And human vanity needs a strong pressure to keep it within moderate limits. Even the wise man, with all his unsparing efforts to keep self-conceit down, has latent in him more of it than he would like to confess. I lately heard of an outburst of the vanity latent in a decent farmer of moderate means. One market-day he got somewhat drunk, unhappily. And walking home, on the country road, he fell into a ditch, wherein he remained. Some of his friends found him there, and proceeded to rescue him. On approaching him, they found he was praying. For though drunk that day, he was really a worthy man: it was quite an exceptional case; I suppose he never got drunk again. They caught a sentence of his prayer. It was: "*Lord, as thou hast made me great, so do thou make me good!*" His friends had no idea of the high estimation in which the man held himself. He was, in the matter of great-

ness, exactly on the same footing with the other people round him. But he did not think so. In his secret soul, he fancied himself a very superior man. And when his self-restraint was removed by whisky, the fancy came out.

But he must have been at least a well-to-do man, who had this idea of his own importance. Many men are burdened far too heavily for that. Very many men in this world are bearing just as much as they can. A little more would break them down, as the last pound breaks the camel's back. When a man is loaded with as much work, or suffering, or disappointment, as he can bear, a very trifling addition will make his burden greater than he can bear. I remember how a friend told me of a time when he was passing through the greatest trouble of his life. He had met a very heavy trial, but was bearing up wonderfully. One day, only a day or two after the stroke had fallen, he was walking along a lonely and rocky path, when he tripped and fell down, giving his knee a severe stunning blow against a rock. He had been able to bear up before, though his heart was full. But that was the drop too much: and he broke down and cried like a child, though before *that* he had not shed a tear.

There are various conclusions at which men arrive as they go on, which at an earlier part of their journey they would have rejected with indignation. One thing you will learn, my reader, as you advance, is, what you may expect. I mean, in particular, how much you may expect from the kindness of your friends; how much they are likely to do for you; how much they are likely to put themselves about to serve you. I do not say it in the way of finding fault; but the ordinary men of this world are so completely occupied in looking to their own concerns, that they have no time or strength to spare for those of others. And, accordingly, if you stick in the mud, you had much better, in all ordinary cases, try to get out yourself. Nobody is likely to help you particularly. Good Samaritans, in modern society, are rare; priests and levites are frequent. I lately came to know a man who had faithfully and effectually served a certain cause for many years. He came at last to a point in his life at which those interested in the cause he had served might have greatly



helped him. He made sure they would. But they simply did nothing. Nobody moved a finger to aid that meritorious man. He was mortified; but after waiting a little, he proceeded to help himself; which he did effectually. I do not think he will trust to his friends any more. The truth is, that beyond the closest circle of relationship, men in general care very little indeed for each other. I know men, indeed—and I say it with pride and thankfulness—with whom the case is very different: I remember one who loved his friends as himself, and who stood up for them everywhere with a noble devotion: I think a good many of them caught from him the impulse that would have made them do as much for *him*; but *he* was one of the truest friends and the noblest-hearted men on this earth. Many months are gone since he was laid in his grave; but how many of the writers and readers of this Magazine cherish, more warmly than ever, the memory of John Parker! “If I forget thee,” my beloved friend—you remember David’s solemn words. But, compared with the chance acquaintances whom every one knows, *he* was as a Man among Gorillas. And I recur to my principle, that beyond closest ties of blood, men in general care very little for one another. You have known, I dare say, an old gentleman, dying in great suffering through many weeks; but his old club friends did not care at all; at most, very little. His suffering and death caused them not the slightest appreciable concern. You may expect certain of your friends to be extremely lively and amusing at a dinner-party, on the day of your funeral. I remember, a good many years ago, feeling very indignant at learning about a gay entertainment, where was much music and dancing, attended by a number of young people, on the evening of the day on which a fair young companion of them all was laid in her last resting-place. I am so many years older; yet I confess I have not succeeded in schooling myself to feel none of the indignation I then felt; though I have thoroughly got rid of the slightest tendency to the surprise I felt in that inexperienced time. For, since then, I have seen a young fellow of six-and-twenty engaged in a lively flirtation with two girls who were in a railway-carriage while he was standing on the platform, just the day after his mother’s funeral. I have beheld two

young ladies decked to go out to a ball. Their dresses happily combined a most becoming aspect with the expression of a modified degree of mourning. They had recently lost a relative. The relative was their father. I have witnessed the gayety and the flirtations of a newly-made widow. It appeared to me a sorry sight. There are human beings, it can not be denied, whose main characteristics are selfishness and heartlessness. For it is unquestionably true, that the most thorough disregard for the feelings, and wishes, and interest of others, may coexist with the keenest concern for one’s self. You will find people who bear with a heroic constancy the sufferings and trials of others; but who make a frightful howling about their own. And, singularly, those who never gave sympathy to another mortal expect that other mortals shall evince lively sympathy with them. Commend me to a thoroughly selfish person for loud complaints of the selfishness of others.

As you go on, you will come to understand how well you can be spared from this world. You remember Napoleon’s axiom, that no man is necessary. There is no man in the world whom the world could not do without. There are many men who, if they were taken away, would be missed; would be very much missed, perhaps, by more or fewer human beings. But there is no man but what we may say of him that, useful and valuable as he may be, we might, sooner or later, with more or less difficulty, come to do without him. The country got over the loss of Sir Robert Peel and the Duke of Wellington; it misses Prince Albert yet, but it is getting over his absence. I do not mean to say that there are not hearts in which a worthy human being is always remembered, and always missed; in which his absence is felt as an irreparable loss, making all life different from what it used to be. But in the case of each, these hearts are few. And it is quite fit that they should be few. If our sympathy with others were as keen as our feeling for ourselves, we should get poorly through life; with many persons, sympathy is only too keen and real as it is. But though you quite easily see and admit that human beings can be spared without much inconvenience, when you think how the State comes to do without its lost political chief, and the country without its de-

parted here, you are somewhat apt, till growing years have taught you, to cherish some lurking belief that you yourself will be missed, and kindly remembered, longer and by more people than you are ever likely to be. A great many clergymen, seeing the strong marks of grief evinced by their congregation as they preach their farewell sermon before going to another parish, can hardly think how quickly the congregation will get over its loss; and how soon it will come to assemble Sunday by Sunday with no remembrance at all of the familiar face that used to look at it from the pulpit, or of the voice it once was pleasant to hear. Let no man willfully withdraw from his place in life, thinking that he will be missed so much that he will be eagerly sought again. If you step out of the ranks, the crowd may pass on; the vacant space may be occupied; and you may never be able to find your place any more. There are far more men than there are holes, and all the holes get filled up. Who hastily resigned a bishopric? who in dudgeon threw up an Attorney-Generalship? who (thinking he could not be spared) abdicated the Chanceryship? And did not each of these men find out his mistake? The holes were filled up, and the men remained outsiders ever afterward. There is a very striking story of Hawthorne's, analyzing the motives and feelings of a man who, in some whim, went away from his house and his wife, but went no farther than the next street, and lived there in disguise for many years, all his relatives fancying him dead. And the eminent American shows, with wonderful power, how a human being so acting may make himself the outlaw of the universe. It needs all your presence, all your energy, all your present services, to hold you in your place in life, my friend. There are certain things whose value is felt through their absence; but I think that, as a general rule, a man can make his value felt only by his presence.

A friend of mine, who is a successful author, told me how, when he published his first book, he made quite sure that all his friends would read it, and more particularly that all his cousins, to whom he sent copies of his book, would do so. But he confided to me, as one of the lessons he had arrived at in going on, that it is with total strangers that any writer must hope for whatever success he may reach. Your

cousins, thinking to mortify you, will diligently refrain from reading your volume. At least they will profess that they do so; though you will find them extremely well coached up in all the weak and foolish passages with which the reviewers have found fault. And these passages they will hasten to point out to your father and mother, also to your wife; at the same time expressing their anxious hope that these foolish passages may not do you harm. My friend told me how in his first book there was a sentence which his cousins feared would give offense to a certain eminent person who had shown him kindness; and the promptitude with which they could always turn up the passage, and the vigorous and fluent manner in which they could point out how offensive it must prove to the eminent person, testified to the amount of pains they had bestowed upon the discussion of the subject. Among the six hundred pages, how easily and swiftly they could always find this unlucky page! My friend told me that in a rather popular book of his, there was a passage of a few pages in length which had been severely criticised. Possibly it was weak; possibly it was absurd. I confess that I read it, and it did not strike me as remarkable. However, the critics generally attacked it; and probably they were right. A few weeks ago, my friend told me he met a very pretty young cousin of twenty years, for the first time. With a radiant smile, the fair cousin began to talk to my friend about his efforts in authorship. "O Mr. Smith!" said she, "do you know, the only thing I ever read in your book was that part where you said"—no matter what. "It was so funny! Do you know, Cousin Dick showed it to me the moment I arrived at Ananias street!" I have not the faintest doubt that Cousin Dick did. I have myself heard Dick quote a sentence from his relative's work, which sounded very flippant and presumptuous. I turned up the page and requested Dick to observe that he was (unintentionally, but) grossly misrepresenting the passage. It was not the least like what he quoted; and the version given by him was altered, greatly for the worse. Dick saw he was wrong. But several times since have I heard him give the incorrect quotation, just as before. Of course, his purpose was not to represent his relative as a man of taste and sense.

I think that as we go on we come to have a great charity for the misdoings of our fellow-men. There are, indeed, flagrant crimes, whose authors can never be thought of but with a burning abhorrence. I have heard of the doings of men whom I should be happy to help to hang. But I am thinking of the little misdoings of social life in a civilized country. As for deliberate cruelty and oppression, as for lying and cheating to make money, I never have learned to think of them but with a bitterness approaching the ferocious. Nor have I grown a bit more charitable with advancing years in my estimate of the liar, cheat, and blackguard, (of whatever rank,) who will mislead some poor girl to her ruin. I should be glad to burn such a one, with this hand, with a red-hot iron, upon the forehead with the word LIAR. And something of the emotion I feel in the thought of him extends to the thought of the young ladies who waltz with him, knowing perfectly what he is; and to the thought of the parsons who toady him, in hope of a presentation to the wealthy living of Soapy-cum-Sneaky. But, setting these extreme cases aside, you will come, as you go on through life, to see some excuse for various little misdoings, toward which you felt somewhat bitterly in earlier years. You will come to frankly recognize the truth, which at first you are slow to admit, that there are certain positions which are too much for human nature. I mean too much for human nature to hold without exhibiting a good deal of pettiness, envy, spitefulness, and malevolence, unless, indeed, with very fine and amiable natures. There is an ecclesiastical arrangement peculiar to Scotland; it is what is termed a *Collegiate Charge*. It means that a parish church shall have two incumbents of authority, dignity, and eminence, exactly similar. The incumbents, in many cases, quarrel outright; in many more, they do not work cordially together. In a smaller number, indeed, they have been known to be as brothers, or as father and son. There is something trying in the position of a parish clergyman who has a curate, or assistant, who is more popular than himself. You may sometimes find a church poorly attended when the clergyman preaches, but crowded when the curate does so. Even in such a case, if the rector be a good man, and the curate another, perfect kindness may exist between the rector and the curate; but I

doubt whether that kindness is much to be expected from the rector's wife. And when the curate at length gets a parish of his own, he need not expect that his old principal will often ask him back to preach. Now, many people will be found ready to speak with much severity of the principal who acts thus; and to blame the clergyman who, not being able to fill his church himself, prefers having it empty to seeing it filled by any one else. Such people are unquestionably wrong. They expect from the poor clergyman more than ought to be looked for from average human nature. The clergyman's conduct is very natural. Put yourself in his place: look at the matter from his point of view. You would not like yourself the thing he does not like. You would very possibly do exactly what he does. And you might do it all quite conscientiously. You might fancy you had high and pure reasons for what you did, and that there was no intrusion of jealousy. The young curate's sermons were, very likely, very crude and extravagant; and you may honestly think it your duty to prevent your people from being presented with spiritual food so immature. And rely upon it, those men who carefully exclude from their pulpits all interesting and attractive preachers, and put there (in their own absence) the dullest and poorest preachers they can find, though doubtless actuated in great measure by a determination that they themselves shall not be eclipsed, but shall rather shine by comparison, are quite able to persuade themselves that they act from the purest motives. But even while you pity the men (let us hope there are very few) in whose mind such unworthy considerations have weight, do not blame them severely. They are in a difficult position. No doubt they would find it happier as well as worthier to spurn the first suggestion of petty jealousy; no doubt the magnanimous man would do so; but there are men who are not magnanimous, and who could no more be magnanimous than they could be six feet high, or than they could write *King Lear*. Now, my friend, as you go on, you come to understand all these things. You learn to make great allowances for the pettiness of human nature. You come to be able to treat with cordiality people to whom in your hot and hasty youth you could not have spoken without giving them a bit of your mind which they would not have

liked to hear. And when I say that with advancing years you come to excuse human misdoings, I do not mean that as we grow older we come to think more lightly of the difference between right and wrong, or between the generous and the mean. I hope we know better than that. It is another principle that comes into play—the principle, to wit, that not being without sin yourself, you should be slow to cast a stone at an erring brother. It has been already said that there are cases as to which we shall not reason thus. Of heartless and deliberate cruelty and treachery we shall never think but with fury, and we do not wish ever to think but with fury. Give me the knout, and lead out one of several human beings of whom I have heard, and I will warrant you you should hear extensive howling! I am not afraid to plead the highest of all precedents for the permission of the bitterest wrath and for the dealing of the sharpest blows. But I humbly and firmly trust, my friendly reader, that in you and me there is nothing like heartless, deliberate cruelty and treachery. We have no sympathy at all with these, any more than with the peculiar taste which makes worms like filth. But as to very much of human error and weakness, do you not feel in yourself the capacities which (though restrained by God's grace) might have brought you to all that? The thing we can least forgive is that which we can not imagine how any one could do—that which we think we have in us nothing like.

In your earlier days, you were perpetually getting into scrapes, by speaking hastily and acting hastily. As you go on, you learn by experience to avoid these things in great measure; and you learn to be very cautious as to the people you will take into your confidence. It is a sorrowful lesson of experience, but it *is* a lesson of experience, that there are many people to whom you should never say a sentence, without first calculating whether that sentence can be repeated, or can be misrepresented, to your disadvantage. Like a skillful chess-player, you need to consider what may be the result of this move. It is to be admitted, that much of worldly wisdom is far from being a pleasing or noble thing. You learn by experience a great deal which it is right you should know and act upon, yet which does not ennoble you. It is a fine sight, after all, a warm-hearted, outspoken, injudicious

man of more than middle age! I know well an eminent professor in a certain university, who is a very clever and learned man, and a very injudicious one. I admire his talents and his learning; but I feel a warm affection for his outspoken and injudicious honesty and truthfulness. I am quite sure that if he thought a neighboring marquis a humbug, he would call him one. I have the strongest ground for believing that if he thought a bishop a fool, he would say so. Let us ever try to hold our prudence free from the suspicion of baseness. I trust that as we go on, we are not coming to practice sneaky arts to the end of getting on. Sneakiness, and underhand dealing are doubtless to be reckoned among the arts of self-advancement. Honesty is, in many cases, unquestionably the very worst policy. But though honesty be so, honesty is the right thing, after all! But honest men sometimes think to possess, together, two inconsistent things. They think to possess the high sense of scrupulous integrity; and at the same time the favor, patronage, and profit, which can be had only by parting with *that*.

We are all going on: a man here and there is also getting on. As you look round upon the people who started with you, you will discern that even those who are doing well in life, for the most part reached their utmost elevation before very many years were gone; and for a large tract of time past have not been gaining. They are going on, in short: Time makes sure that we shall all do *that*; but they are not getting on. Their income is just the same now that it was five or ten years since; and the estimation in which they are held by those who know them has neither grown nor lessened. But there is a man here and there who is growing bigger as well as growing older. He is coming, yearly, to be better known: he is gaining in wealth, in influence, in reputation. Every walk of life has its rising men. There are country gentlemen who gradually elbow their way forward among the members of their class, till they stand conspicuously apart from them. So with painters, authors, barristers, preachers. Who are they, among those whom I know, who are making way, and rising in the world? And what is the secret of their success? I must stop and think.

A. K. H. B.

From the British Quarterly.

SOCIAL LIFE IN MEDIEVAL ENGLAND.*

WILLIAM of Malmesbury's tribute to the magnificence and solidity of the Norman buildings as compared with those of the Anglo-Saxon, to which we referred before we were carried away by this digression, is perfectly just. The Norman house was more commodious and convenient; and, although the notion of raising a floor above the ground-floor can not be strictly said to have originated with the Normans, they are fully entitled to the credit of having been the first to develop its capabilities. A few rare examples may be found amongst the Anglo-Saxons of a room at the top of a flight of stairs; but it was usually very small, a mere crib, or lookout, and was called the *soler*, apparently because it was nearer to the sun than the lower apartment, the progenitor, probably, of that cramped, low-roofed room which the French call the *entre-sol*. It was the Normans who discerned in this crude beginning a power of useful expansion, and who contrived an apartment aloft where they could dine luxuriously *en particulier*. To them also may be ascribed the honor of having invented the parlor, literally (*parloir*) a room for talking in, derived from the usages of the monastic establishments. This is not the place to enter into architectural details, but we may observe generally that social progress and the progress of house architecture throw a vivid, illustrative light upon each other. When the country was in a lawless state, and the means of intercommunication was hazardous and difficult, when might made mince-meat of right under a feudal dispensation, and nothing was safe but the strong hand, houses were built mainly with a view to security; the walls were thick, and the ditches were deep, and drawbridges, loopholes, and battlements, marked the elaborate precautions that were deemed necessary for the purpose of protection. As the danger gradually diminished, and law and order diffused feelings of confidence

throughout the country, houses ceased to be built like fortresses, and security was less thought of than domestic accommodation and the gratification of taste. And thus we have come down from feudal castles to gentlemen's seats and rich men's "folies." The change affects every particular connected with private dwellings. Instead of seeking strategic positions, perched on the summits of inaccessible hills, or down in the angle of a valley to command the mouth of a gorge, or the banks of a river, we now look for situations agreeable to the eye, or suitable to the constitution; we consult climate, soil, and the winds, without caring at what points of the compass an enemy could bombard our windows, or rake our slates and chimney-pots with a volley of grape-shot; and we lavish upon the luxury of the interior those resources which used to be expended upon the outworks.

But it is only in their luxuries, and the arts which administer to them, that the Normans contrast favorably with the Anglo-Saxons. Could we get at sufficient means of comparison, we suspect it would be found that in other directions, especially in their morals, the Anglo-Saxons possess higher claims upon our respect. The gallantry which rose out of the feudal system was far from being so noble or manly as it is made to look in the ballads; and it may be gravely doubted whether women were ever worse treated than in what Burke calls the age of chivalry, or, at all events, in the early part of it. Wives were subjected not only to barbarous cruelty, but to indignities more dreadful than the pincers of the torturer, or the horrors of the *oubliette*. Precepts of craft and caution constituted the current wisdom of the day. Young people entering the world were recommended to keep up a showy exterior, to be very attentive to the forms of religion; but to believe in nobody or nothing, and to keep their thoughts to themselves. A youth was thus advised by his father not to quarrel

* Concluded from Page 298.

before people, lest his opponent, in an excess of passion, might let out something to his discredit; and he was further counseled, after he married, never to reveal to his wife any thing he wished to conceal. These cunning maxims were mixed up with others which were not wholly of so selfish and mean a character, and in which a stray gleam of munificence and generosity occasionally breaks out; but, taken in connection with the profligacy, arrogance, and oppression of the feudal ages, and the treatment of women generally, they lose all value in the setting, and their exceptional grace only serves to give them a suspicious significance.

The advice to young ladies, on questions of deportment and modesty, which abound in the romances and text-books of the middle ages, can not be properly appreciated without bearing in recollection the freedom of intercourse which subsisted between the sexes. The life of the times is a practical commentary on its written ethics, and the one must be read by the light of the other. Young ladies were in the habit of receiving the visits of gentlemen in their chambers while they were in bed, and frequently of returning the visits under similar circumstances. Candlesticks did not enter into the economy of medieval houses, and the old Saxon method of fixing a candle on a stick, from whence we obtain our word candlestick, had not undergone much change under the Normans. Usually the stick, or spike, formed a part of the framework at the head of the bed, so that the light might be easily extinguished by the person in bed or going to bed. To these circumstances may be attributed the fact that the visits on both sides were often made in the dark, and were, consequently, fruitful of scandals.

The beds for many centuries were made of straw. Feathers came very slowly into use. At first we hear of white straw being shaken and laid, and covered with a quilt of feathers; and it was not till the fourteenth century that beds began to be made altogether of feathers; but they were limited to the highest and wealthiest classes. After another interval beds came to be decorated with curtains, and to put on a look of warmth and coziness, with, probably, very little of the reality. Throughout all these advances in the formation of the bed and its furniture, it was the custom for both sexes to sleep without night-dresses of any kind. The cus-

tom was not confined to any particular grade of the community. It was universal, from the princess to the chambermaid. Strange things are recorded in the tapestries and illuminations as arising out of these usages. With the body unprotected by a shred of covering, and the head wrapped in a warm kerchief, a duke's daughter, destitute of a hand candlestick, is lighted to bed by a candle stuck on a spike in her bedstead; people are seen lying in a state of nudity in adjacent beds, while others are passing to and fro in the same condition; and kings and queens are represented in bed with their crowns on; upon which latter incident Mr. Wright observes with inimitable *naïveté*: "The crowns on their heads are a mere conventional method of stating their rank. Kings and queens were not in the habit of sleeping in bed with their crowns on their heads."

The medieval romances, which, upon the whole, present a tolerably faithful reflection of the actual cotemporary life, are as full of the inevitable consequences of these free and open customs as eggs are said to be full of meat, or Spanish comedies of intrigue. "Medieval society," says Mr. Wright, enunciating a melancholy and too palpable truth, "was profoundly immoral and licentious." Elsewhere he says, that "the clergy were the great corrupters of domestic virtue amongst the burgher and agricultural classes." The upper classes did not need the temptations and sanctions of the Church. Their demoralization came from within. It was the natural issue of insular training and exclusive privileges. The extremities to which the Norman aristocracy carried the indulgence of their passions may be least offensively exemplified by the wanton cruelty they displayed in their field sports. The forests were preserved with barbarous severity. Whoever killed a hart, or a hind, or a boar, was condemned to be blinded. The chase was one of the favorite pastimes, and no considerations of justice or humanity were allowed to check the career of the hunter, whose course was a track of desolation to the tillers of the soil. Respect for private rights was unknown. No such rights can be said to have existed, for they were never recognized. Cultivated lands, covered with growing crops, were ridden over and trodden down with impunity, as if they had been so much waste common. Nor was this all, perhaps it was the least

of the evil. Having destroyed the crops, the hunters quartered themselves on the owners; and if the provisions they found in the houses fell short of their wants, they inflicted punishment on the inmates. Darker crimes followed, which left disgrace and bitterness behind. But we must not trace the picture any farther. Whatever excesses the imagination can conceive associated with the gratification of brutal lusts, may be ascribed to the Norman aristocracy on their hunting excursions, without much risk of exaggeration.

The ladies who were brought up in the midst of such experiences could not be expected to be very tender of heart, or modest of bearing. Any such expectations would be grievously disappointed by the facts. They were as passionate, self-willed, and imperious as the heroes who wooed them with devotional homage before marriage, and beat them afterward. Their "gentle blood" was as incapable of submitting to restraints in the pursuit of pleasure, as if it coursed in the veins of the coarser sex, whose license they constantly usurped. They not only laid aside that reserve which is almost a constitutional attribute of women, but they took the initiative in those advances which, all the world over, are assigned to the province of men. They did not always wait to be solicited, or to observe the effect of their charms. When the train of passion was fired, they followed it up to its conclusions with an ardor which showed how completely the positions of the sexes were reversed. This state of things was not brought about without a corresponding corruption of manners in the general intercourse of society. Conversation became flooded with impurities. The common language, written and spoken, was impregnated with that character of dissoluteness which pervaded the highest and best educated circles.

The rules which were inculcated for external conduct, or superficial manners, harmonize curiously with the libertinism which infected the core of society. They embrace minute regulations for the cultivation of that kind of artificial breeding which is the obvious veneer of an age of licentiousness. They abound in demure restrictions and repressive maxims for behavior, all tending to the production of the results which they affect to deprecate; and they illustrate, in a very remarkable way, the infancy of that condition of so-

ciety, refined, hollow, and profligate, which culminated, some hundreds of years afterward, in the masques of Saint Germain and the voluptuous splendors of Versailles.

Ladies, for instance, are warned that it is unbecoming to talk much, that they should not boast of the attentions they receive from the other sex, nor betray too much freedom in their sports and pastimes, lest it might encourage libertinism; that they are not to look too much at men, nor to suffer men to take certain liberties with them, a bare allusion to which, in the present day, would be an outrage. Scolding, swearing, uttering falsehoods, eating and drinking too freely, and getting drunk, are severally reprehended; and ladies are advised to keep their nails cut, and their hands clean, and, when they have handsome faces, to be sure to let them be seen. Highly suggestive too, are the instructions relating to church-going, remembering how strictly observances of that description were kept up in later times by such ladies as Madame de Maintenon, and Louise de Querouaille. On the way to church a lady was not to "trot or run," says a *trouvère* of the thirteenth century, who compiled a code of instructions for young ladies, referred to by Mr. Wright; but to walk seriously, looking neither to the right nor the left, taking care not to go on in advance of her company, and observing to salute "debonairely" all persons she met. When she arrived in church she was to behave with becoming gravity, she was not to suffer her eyes to wander, whatever her thoughts might do, and she was to be strictly attentive to the forms of the service. Equally characteristic are sundry prudential hints against the indulgence of a dangerous curiosity. In passing people's houses, ladies are not to look into them, "for," says the shrewd instructor, "a person often does things privately in his house, which he would not wish to be seen, if any one should come before his door." The same discreet caution was to be observed on entering a house, or a room. The visitor was to cough at the entrance, or to speak loud, so that the person within should not be taken by surprise.

Notwithstanding all these indications of a life of *finesse* and levity, the households of the ladies of the middle ages appear to have been conducted with order and pro-

priety. The characters of servants, especially if they came from a distance, were carefully examined; and every servant had special duties to perform, which very much resembled the ordinary duties performed in our own day by those laborious maids-of-all-work, whose worsted stockings were celebrated in a prose Idyl by Leigh Hunt. Sweeping the hall, dusting the forns, benches, and footstools, shaking the cloths and carpets, and cleaning and arranging the chambers, constituted the routine of the housemaid's morning tasks five hundred years ago, just as they do in the nineteenth century. It must be confessed that we do not get up quite so early as our Norman ancestors, who opened their shutters at the dawn of day, and that the feeding of "chamber animals" does not enter into the regular domestic programme. Nor can we take credit for feeding our servants so plentifully as they were fed in the old baronial halls. The day's proceedings in that particular are worth noting for more reasons than the abundance of the provisions. The first meal was at mid-day. It consisted of one meat, provided without stint, and of one drink, wine or otherwise, which was to be "nourishing but not heady." The servants were admonished at this meal, which was to lay the foundations for a day of incessant industry, that they were to eat and drink heartily; but they were required to do so without loitering or gossiping. The moment they began to slacken, and talk, and lean their elbows on the table, they were ordered to rise, and the table was removed. Another repast of a lighter kind followed at an interval; and a third succeeded in the evening, as abundant, and of the same character, as the first.

The ladies attended personally to their household affairs, and looked after their servants to see that they executed their work properly. It was the business of the lady of the house every night to ascertain that the doors were locked, and the fires put out, to take charge of the keys, and to send the servants to bed, a strict watch being kept over their candles, so that none should be left alight after the household had retired. The mistress of a large establishment in these times had other, not less arduous, and even more important, duties to discharge. We frequently read in the medieval romances of wounded knights being tended and cured

by maidens, who, from first taking compassion upon them, end by marrying them. So, also, good wives are described keeping in their houses potent herbs, vegetable decoctions, balsams, and ointments, with which they effected signal cures. Professional aid was rare, and seldom available at a short notice, and ladies benevolently took upon themselves the double offices of nurses and doctors, and even went through a certain course of study to fit them for their labors. They studied in the garden, and picked up all the oral traditions that came floating down to them concerning the occult virtues of plants and flowers. Every house had its garden, and every garden had its medicinal herbs, and there was always a fair student moving about amongst them culling knowledge, and speculating on its uses. No doubt there was a dark as well as a bright side to this knowledge. The restorative principle in herbs was coexistent with a destructive principle; and while the lady was learning the art of preserving life, she was also learning how to destroy it. The knowledge of medicines brought with it the knowledge of poisons, and ladies became skillful adepts in both. The poisoners of the middle ages are amongst the infamous celebrities of history, and it is hardly necessary to add that a large majority of them were women.

Although the Normans transplanted into England many French usages and luxuries, they failed to effect any material change in the national character. The old stubborn Saxon element still remained predominant. There were some things with which it could not assimilate. No art or influence, for example, could have succeeded in naturalizing amongst us those erotic tribunals which flourished in Provence and elsewhere in France, under the name of Courts of Love. The good sense of the people would have revolted from any attempt to give shape and fashion to an institution, which undertook to impart the force of law to the subtleties of a fantastic code of sentiment. Yet the Courts of Love sprang from the feudal system, and marked more expressively than any recognized laws the peculiar tendencies of society during the middle ages. Chaucer made them known in England by a famous poem descriptive of the general nature and functions of a Court of Love, which if not strictly copied from the Provencal courts, preserved their principal features under

other forms and names. The English, however, regarded all such descriptions as mere poetical reveries. Chaucer's palace of Love, its statues, and symbolical personages, commanded no more credence than an old legend of the Northern mythology, or an Oriental allegory. Had the charming Countess of Narbonne herself, the most illustrious of all the lady presidents, illustrious alike by her beauty and her judgments, come over to England, and held one of her courts under an elm tree in some royal park, the proceedings would have been looked upon by the people in those days as they were accustomed to look upon a tournament or a bull-bait. They would have attached no serious meaning to such an assembly, and would have treated its verdicts with ridicule. Imagine at any time in England a court, composed of ladies and gentlemen of high rank and social weight, sitting in the open air to receive and decide upon complaints concerning matters of gallantry, to resolve dilemmas of love, sometimes actual and sometimes suppositious, for the guidance of both sexes, and to hear contentions or arguments upon what may be called points of law in relation to the rights, duties, and responsibilities of lovers in every stage of their intercourse. The custom of Dunmow was a reality, because it touched a passage of domestic life which people were rather vain of, and because it was attended by a practical result. But here was a tribunal instituted for the public trial of questions over which every body concerned was interested in throwing a veil of secrecy, and the decisions of which bound nobody, and led to no result whatever. Such elaborate trifling did not suit the Saxon genius. The people saw their way clearly to substantial improvements; casuistry was much too fine and frivolous for their vigorous intellects. They discerned at once the value of a new invention by which discomfort was minimized and enjoyment increased; but could see no profit in investigating such gratuitous problems as, "Which should you prefer—that your mistress should be dead, or married to another?" And here the line may be drawn loosely but intelligibly, between what we have derived and rejected from the French. That the Courts of Love never found their way into England, either in sport or earnest, is singular, nevertheless, since the roll of their presidents includes two names associated with our throne. Queen Eléonore,

first married to Louis VII. of France, and afterward to Henry II. of England, was one of the most celebrated of the Ladies President or Queens of Love, and her decisions are recorded in the judgments of the tribunal under the signature of Regina Ailenora; and no less illustrious as a President or Prince of Love, was Richard Cœur de Lion, who held that office alternately with the Dauphin of Auvergne, the Count of Provence, and Alphonsus of Arragon.*

One of many reasons—independently of the radical differences of national character—why these open customs, which, so to speak, let the daylight in upon the most secret recesses of life, found no favor in England, was that from the time of the Anglo-Saxons downward the people manifested an increasing disposition to cultivate privacy of their homes. The old hall, with its glare and publicity, was insensibly superseded by the quiet dining-room; and then came the happy thought of the parlor, a room in which a few friends might meet together and converse without restraint. The parlor superseded the uses of the bed-chamber as an apartment for receiving visitors, and conducting the affairs of the household; and ladies, thus relieved from the intrusion of strangers, were not slow to appreciate the advantages of retirement. The universal utility of the parlor was developed in proportion as the old hall disappeared, and the bed-chamber ceased to be a reception-room. It became the center of the social system. Here all amusements of the inmates were carried on, games, dances, and merry-makings; here young ladies occupied themselves with fancy works, which they often turned to profitable account; and here, too, the passion for cards and dice was first cultivated in English houses. As the home feeling deepened, people began to collect about them durable evidences of settling down, and to think of transmitting their possessions to future generations. The age of heir-looms commenced under these fostering auspices. Amongst its conspicuous signs were the accumulation of plate and linen, the institution of cupboards and lock-up places to keep the new family treasures in, and the pains which were taken to display them on special occasions. The political changes that were passing over the nation in the fourteenth and fifteenth centuries, tended materially

* *Works of Chaucer*, Ann. Ed. iv. 116.

to strengthen local attachments and nourish domestic habits. Feudalism was passing away; the higher and lower classes were coming more closely together; a strong feeling of independence was growing up amongst the public at large; the Englishman's "house" was assuming every day more and more the attributes of the "castle;" and the growing interest which men were acquiring in domestic life rendered their homes more than ever sacred in their eyes.

We have not thought it necessary to weave through these desultory observations, a running commentary on Mr. Wright's volume upon *Domestic Manners*; but our frequent references to him will evince the estimation in which we hold his labors. Nothing short of a life passed in the study of medieval literature could have amassed and arranged the vast amount of details accumulated in his book. We do not say that the arrangement is exactly what we should desire, or that the treatment is in every respect what it might have been; but we are far from thinking that the task, as a whole, could have been executed so well by any body else. Mr. Wright makes us fastidious by the very richness of the banquet which he provides. To the variety and profusion of the feast we bear cheerful testimony; and if we desiderate any element of pleasure or enjoyment at this bountiful table, it is that our host has served us too amply, and detained us too long. We want essences here and there, where he has given us solid dishes, and we miss that art of selection and condensation by which the palate is spared a succession of identical or similar flavors.

The fact seems to be that Mr. Wright has been collecting his materials for a great number of years past, and that he has been collecting them in the only way such materials can be collected, by multitudinous scraps, which, piled up, heap upon heap, grow into a mountain of chaos at last. The attempt to reduce this chaos to order, and to present the results of so much discursive investigation in a shape of historical continuity, involves an amount and description of labor from the contemplation of which we recoil in alarm. Parts of this book appear to have been written at one time for one purpose, and parts at another for another purpose, and the parts to have been afterward put together with a view to the production of a complete whole.

The process was hazardous, and the skill shown in its execution is considerable. This way of writing in detachments, of taking historical studies in compartments, as it were, is attended by unavoidable risks. There is the risk of committing unconscious repetitions, of falling into inconsistencies of statement, and of failing to bring about the requisite symmetry in the proportions of the work. Mr. Wright has not entirely escaped these dangers. The book, in spite of the world of pains bestowed upon it, has a straggling air; we often feel the want of dates, although we know how difficult it would be to supply them, and that there is a division of periods which ought to content us; we find the same things recurring in different places, easily seen by us who read the entire volume through from beginning to end (and we have not missed a page) for the first time, although by no means easy of detection to the author whose head is full of them; and we are sometimes perplexed by an apparent confusion, which may be no confusion after all, but an uncertainty of expression arising from the nature of the evidence upon which the descriptions are founded, and which opens a wide door to guess-work and speculation. In saying this, we are saying the worst we have to say, and archeologists will understand how little this is in comparison with the responsibilities of such an undertaking. The merits of the work are obvious. We wish it had been shorter, because it would then have been more readable for the million. But students of social history will find nothing tedious in quotations otherwise superfluous, nor will they complain of space bestowed upon matters not very important in themselves. The test of such books is that they should be comprehensive and trustworthy. This book is both. It is a complete store-house of facts, gathered with diligence from a multitude of sources, and placed before the reader without varnish or exaggeration. Above all things, it is free from prejudices. It is written from no particular point of view, and betrays none of the vices of partisanship. Nor does its attraction lie wholly on the side of the grave and useful. It is full of pictures of extinct manners, as amusing as if Mr. Wright had dug up a thousand volumes of some *Punch* of the middle ages, and given us the cream of them, wood-cuts included, interspersed through his work.

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BY-GONE MANNERS AND CUSTOMS.

PART II.

THE fashionable costume of 1790 differed much less than may be supposed from that of three-score years subsequently, and much more from that of 1804 than of 1850. The French fashions of 1793, or a little preceding, which gave the law to Europe, perished with the monarchy. Many living—then young children—must remember when the cane and whalebone of the maternal hoop were discarded, and how they were converted into childish bows for their arrows of reed. Nor was it the costume of the fair sex alone which was thus changed. Wigs, small and large, those ridiculous ornaments of the Bourbon regime for more than a century, whether natural or artificial, sheep-tailed, episcopal, or judicial, on the head of the judge, the bishop, or the beau, were scurvily treated. Whether they really imparted wisdom, or, what is much the same thing, fixed the reputation of it, they were long retained, and in the law are still much more tenaciously clutched than are certain important clauses in *Magna Charta*. About this time—we speak of the commencement of the century—square-toed shoes gave way to sharp, to round, to lefts and rights, and to all manner of innovations in turn. Hessian boots came in; strings in the shoes superseded buckles in full dress—thus revolutionizing fashion at the nether extremities. These in the law courts were of little moment, while the wig remained sacred and free from contempt in its own peculiar sphere, rendering solemn verbiage too often of more than its intrinsic value twice told, giving the reputation of reason where it may be absent; and if not too wise in philosophy, meaning much, where in managing a case in the Four Courts, the sage

—“Veers, and talks, and steers a cause
Against the weather-gage of laws;
And rings the changes upon cases
As plain as noses upon faces.”

Then, too, was the age of blue coats, gilt

buttons, buckskin breeches, and brown-topped boots. This order of boots was never worn in England with tight white leather pantaloons, as it was in France by the military men, because the upper part of an entire black boot was apt to soil the white leather, which the brown top avoided. There is a full-length portrait of Napoleon I. in this booted costume, very common, engraved from a picture by Isabei. In addition to this the French soldiers cropped their hair, which had only the effect of making the queues of our soldiers be more carefully cherished as a mark of loyalty to the old fashion, and of disesteem for French innovations.

Mr. Pitt, so attached to his master's views in behalf of the leading European potentates, incontinently introduced this mark of Jacobinism by the hair-powder tax, at least among civilians. Money was a stronger argument than any political antipathy. It was the minister's duty to raise money in that and other ways, in order, as that sad wag, Peter Pindar, wrote in an address to Pitt, that he might sufficiently

“Sate the golden thirst of kings and queens.”

The lace cravats, and ruffles at the bosom and wrists of the preceding time, began to disappear in society, as well as the large button worn on the exterior of the coat-cuffs, or on the upper part of the arm. The club of the hair vanished long before the pig-tail, but both alike required hair-powder on the coat back to the very waist. This was so indispensable a thing, that the fashionable tailor, before he sent home a coat, rubbed it with hair-powder over the back, and made a charge for the powder—sending home with the coat the remainder of the pound or half pound he had procured for the purpose, and charging for it in his bill. It is true, as a first-rate character has remarked, that dress is a very silly thing when men value themselves upon it; but while a man of sense laughs at it, he knows he must not neglect it,

"for there are a thousand foolish customs of this kind which, as they are not criminal, must be complied with, and even cheerfully, by men of sense." This may palliate the adoption of some of the Protean absurdities, which appear so ridiculous before or after they cease to be in vogue.

The foregoing practices in fashion were most of them no doubt existent from the time of Louis XIV., had thus nearly completed their cycle, and an approach was made to something like manliness, from the *petit maitreship* that had existed before, tainting the manners of the brave and accomplished, as well of the common brainless class of courtiers. Thus the mode described belonging to that period might almost have been pronounced indigenous. Every folly becomes a fashion in a certain sense, though every fashion is not a folly in the usual understanding of the term. Lord Spencer cut off the skirts of his coat, and folly made a fashion of the amputated garment; but fashions in general are not so clear in their origin, though as fully devoid of taste, which, to be really good, can only coexist with genius; and therefore fashion does not really imply that quality, if once in an age it chance to stumble upon it by accident.

Before the time of the French Revolution, when a native of that country upbraided us with cutting off "the heads of our kings and the tails of our horses," referring to Charles I., and we were enabled to retort, the people of France found in the exigencies of those ferocious times that which lifted them above their old frivolity. Dress became a thing of less moment, because they were engrossed with more manly pursuits, and utility rather than the vagaries of fancy occupied their attention. With the female sex the art of pleasing continued in the ascendant—second nature as it is with them—and fashion became and continued as Protean, if not as tasteless, as before. The models supplied by Greek statuary, with some modifications not of much moment, were calculated to display the graces of the female figure to great advantage—fully as much, indeed, as the present dress is formed to disguise that figure, and degrade the inventor's understanding in relation to the principles of taste. It is true that, in private collections of the antique in this country, as well as in those which were public, there were to be found examples enough for copies; but the art of adapting the drapery

consistently with modern notions of propriety, and still preserving the contour, was no easy task for the English dress-maker. Our ideas of propriety are of a very inconsistent character; and Swift's saying, that "a nice man is a nasty man," might serve for a note to many of the coynesses we observe regarding the exhibition of the naked figure, or that partially draped. George III., one of the coarsest-speaking men of his time, always made a fuss among the nobility about the Queen and Princesses visiting sculpture galleries.

The necessity of Christianizing antique figures in the matter of dress puzzled the fabricators, and they studied the subject with about as much effect as half a dozen dancing-masters would study the nine difficult points in divinity of the "seraphic doctors," or a knotty question fit only for the professors of the Sorbonne. The hollow truce of 1802 enabled professional dames to acquire something of the French mode once more, both of the past and present—the future being still a sealed book. War cut off all intercourse as before, and again, until the general peace, the fashions became of a neutral character, neither French nor English. When France was beaten into peace again, she vindicated her own superiority; even the mixed mode adopted before the general peace had the merit of being more graceful, less cumbersome, and preferable to those in vogue before the great continental convulsion. At that time every possible effort had been made to disguise nature. Hats of a monstrous size, more like umbrellas, protruded around the head; stays touching the chin, the latter buried in muslin kerchiefs, starched as stiffly as possible; curls of a large size, kept in order with pins, and thickly pomatumed and powdered, had been standard rules in the courts of England and France, in union with other monstrosities at war with the beauty in the outline of the female figure as far as it was possible to make it hostile. The sex appeared ashamed of the resemblance it bore to the beauty of its common mother, as if desirous of making the artificial and tasteless supersede nature altogether. Thus the hair was often cropped to substitute a towering wig with Alpine curls—Pelion upon Ossa. The hair over the forehead was combed back, giving an unbecoming appearance to the front, with an unnatural boldness. The curls papered and pendent

in rows over muslin kerchiefs in the morning, hung down in the evening over the bare shoulders, but the curls on and below the temples lay row above row, like sausages placed horizontally one above another, greasy with pomatum, strong with perfume, and powdered white, or with brown, pink, or gold dust. A cushion was worn on the top of the head, to which the hair was attached, and the toupee frizzled off, and sometimes the beehive-shaped cushion thus surmounting all had bits of drapery attached to it, the lower ends of which were loose, or else fastened to a part of the dress beneath, fluttering like so many flags and streamers. This cushion, sometimes made heavy by the introduction of lead in its fabrication, served as a support to feathers, pearl ornaments, and other nicknackery, like the filigree work on the summits of some Gothic tower. Half of every day of precious time was wasted for weeks together in the fashionable season in merely dressing.

But if the colors of the dresses were strange, and wholly antagonistic to Newton's doctrine of the prism in the natural order, they were as singularly selected and arranged. This natural order of the colors set at defiance new tints, not of the "radiant bow," that made their appearance for variety's sake, of which in these degenerate days it is not easy to imagine the hues or their shades. Most of the names were French. Among them was the "Dauphin's Blush," which old Brantome would have declared to be a misnomer in the Court of France, and might have been pea-green for all we can decide about it. There was the "*boue de Paris*," or Paris mud, still more extraordinary in appellation — perhaps allied to the old color called "Isabelle." Then there was the "*soupir étouffé*," the "*gris de Dariée*," and others, as "iron brown," of which we have no accurate demonstration.

The terms given to female apparel as to stuff or color were taken from passing incidents or political events. There were *d'Artois* or *macaroni* cloaks, *cavat* caps for morning attire, *gorge de pigeon* lute-string, and *soufflée* gauzes. The *macaroni* cloaks were as ugly, unmeaning things, as those since borrowed of the Cossacks, or some other semi-savage race. They were made long, with three or four capes like box-coats, the lowest cut to a

point ending in the center of the back. In front there were lapels, such as were worn by men. The fair neck and bosom were covered with muslin, stiffened with gauze much starched. Some ribbons of the time were called *boulets rouges*, from Elliot's use of red-hot balls at Gibraltar. There were the *Carmelite crapaud*, the *yeux d'Empereur*, and similar names attached to colored cloths or stuffs worn at that time. *Ninon* plumes, *plumes de cog*, Chambery gauzes, Gibraltar fans; goat's-beard muffs, and fox-skin muffs, were terms for different dresses or parts of dresses, or their accompaniments. Cuffs and ruffles were worn half-way down the arm, edged with lace, and straw flowers, mingled with gauze, in caps and hats. Straw was worn in every possible mode. Large hats of chip shaded the face, the crowns covered externally with crinkled gauze. A huge corkscrew curl hung down on each side from beneath the hat, while, in the hat itself, were stuck masses of black or white ostrich feathers, while bunches or knots, or ends of ribbon, descended from the poll or brim, under the general name of "streamers." Stays were worn tight-laced, and so high as nearly to touch the chin, called "Abingdon stays;" the stiff kerchief over which came up as high as the mouth. The whole dress was completed with flowers, frills, and furbelows; high white-heeled shoes on the feet, with large, sparkling, oval buckles, called "Devonshire buckles," composed, altogether, a figure highly grotesque to modern eyes accustomed to more simple habiliments. When the cane or whalebone hoops were abandoned, those of cord were substituted, which afterward died out naturally. When Gallic loyalty perished on the scaffold, its grotesque fashions faded fast away, as before observed, and in a few years their traces altogether disappeared.

Though singular and even ludicrous in modern eyes, the costume was not ill-adapted to the state of the fashionable taste at the time in most other things. When Mrs. Siddons was in the height of her popularity, George III. might be seen on public occasions in a suit of white velvet, with a rose-colored satin waistcoat answering to his ruddy complexion, somewhat oddly, on the whole, very like a miller. The royal ladies, in huge, towering head-dresses, were like so many priestesses of Cybele, turret-crowned.

They then went to public places as to court in chairs, made high to receive their head-dresses without derangement. Their hoops were turned on one side to enter and sit at all, and the old dowagers, frizzled, powdered, and plumed, looked like exhumed mummies upright in their sycamore coffins. The protruded kerchiefs prevented all access of the hand to the mouth, except by turning the head sideways, and thus, at a party, they could only manage to sip their tea over the shoulder.

That was a day of cosmetics, too, as well as our own. Perhaps they are now only changed in name. They had no Macassar, it is true, that would make hair grow on old shoes, but they had *pommade de graisse* to encourage the capillary growth, used when *en dishabille*, and they adopted *poudre d'Artois* to finish off. They used "Milk of Circassia," and "Balm of Lilies," the paternities, no doubt, of similar cuticular quackeries now under different appellations. Rouge and white were then used extravagantly, but are banished now, unless in the shape of the gentlest touch of carmine possible with a hare's foot upon a pale complexion. More would not do, as anything resembling the healthy flush of a milk-maid is even now abhorrent to fashion; a pale, delicate face, and clear eyes, indicative of consumption, are the fashionable desiderata at present for complexions.

The renewal of the war after the treaty of Amiens, as already remarked, rendered the introduction of the Parisian fashions, in places remote from the metropolis, very slow, compared to the way in which it would now take place. Certain politicians were very averse from the adoption of the French costume under the Consulate, but fashion acknowledged no superior command from the politician, upon whom it has ever looked down with a full consciousness of its own superiority and disregard of party feeling, that essence of modern patriotism. Tight-lacing, the assassin of female loveliness for two or three centuries previously, fell before the modern imitations of the antique. The flowing drapery of the new costume, in the *simplex munditiis* taste, which was innovating so painfully in the vision of the dowagers and ancient ladies, as to make them declaim that the public morals were in danger, was carried in some cases to an extreme. Madam Recamier, the wife of a noted Pa-

risian banker, made her appearance at the court of the First Consul in an underdress which was little other than a chemise, over which was thrown a fine transparent garment of lace or something of the kind, designed to display the elegant contour of her person to the utmost advantage, for her figure was unquestionably beautiful. This drew upon her the reprobation of the hero, who determined that propriety of the most exact character should be maintained where he ruled; and the ambition of the lovely lady was foiled, as it merited to be, when she did not hesitate to place the gratification of her vanity before the sense of decorum, which can never be dispensed with in her sex under any circumstances. This rebuke became the subject of much remark. Some ladies were shocked at Madam Recamier's conduct—particularly the more ancient. Some were curious to know exactly how, and of what substance her dress on that occasion was made, the better formed of the young dressing a little thinner than before. On the whole, the change turned out greatly for the better, the ease and grace of nature gaining considerably upon the grotesque in art which had preceded. The hair was now plainly ornamented with a single flower, the drapery short-waisted and flowing. The beauty of the natural form was better displayed than by waspish waists, Flanders-mare petticoats, or the present crinolines; and a return was made to the costume seen on the monuments in our old cathedrals, resembling what are humorously denominated "bobbing Joans."

Before the day of Waterloo the French *prestige*, caught at the short peace of Amiens, had gradually blended with English innovation, and produced a costume of a mixed and original character; it was, indeed, unique. Left to itself until the general peace, the fair dames of England, always patriotic, clung to their customary cutters and carvers of silks and satins. It was considered, perhaps, that, speaking figuratively, a sixth order should be added to the fig-leaf art invented in Paradise. The peace hastened the *experimentum crucis*. The sex which, in these islands, in beauty and goodness, yields to none in any other country, began to exhibit their forms in Paris, clad after the taste that had prevailed during England's isolation from the acknowledged focus of all that is excellent in the female garb. The contrast was,

indeed, mortifying. Even French gallantry could not restrain a smile at the singularity of our countrywomen; and on the stage, *Les Anglaises pour rire* raised a laugh at the expense of the fair dames of England, which did not lose from its faithfulness in detail.

The secret was soon disclosed by relatives and countrymen to the objects of it, or to their wives and daughters. They were led to the *Marchande des Modes*, and in a little time the satire lost its sting, and English beauty was generously acknowledged, and its owners duly honored. The change was, indeed, marvelous. British beauty had its triumph, and assumed its ascendancy through the carrying out of the task which had been the standard of its trial, and the superiority of which is now acknowledged by friend and foe, just as it had been before the Revolution.

Down to the Revolution of 1830, and the downfall of the Bourbons, the tasteful costume of the antique was no longer considered a model, as it had been before their return. It must be borne in mind, that both in France and England the fashions have been constantly alike, "except as before excepted," to use the language of the law. With the reinstatement of the Bourbons to their fall, the return to the old fashions seemed inevitable, as far as the restored dynasty could with safety accomplish it—even to the restoration of royal kept-misses, Swiss Guards, and all sorts of obsolete ceremonials. Tight-lacing began to divide the fair dames like hour-glasses, into halves. Frills, ruffs, and the rubbish of old cathedral imagery, began to cheer the souls married to the dead past hope, rather than to the living with it. Bishops' sleeves came in to do honor to the miter, and skirt expansion of full longitude swept up the dust and mud of the streets alike, while little bonnets and ample cloaks, touching the ground in the rear, and enlarging downward, gave a lady, viewed from behind, very much the appearance of a candle extinguisher walking abroad for air.

The more ancient costume was always retained at the Court of George III., whose etiquette was as rigid as in the minim Courts of Germany, and the old costume could not be dispensed with. Queen Charlotte, too, clung to German, or, as she used to call them, "Yarman" customs. Birth-night balls were not as numerously attended then as they are

now, being destitute of that ease and unnecessary ceremony in which George IV., highly to his good sense, made alterations—ease and grace predominating with a propriety which, under the ceremonials of Dutch and Hanoverian manners, were any thing but consonant with those observed in the Courts of the larger European states. Under the formal mode prevalent in the time of George III., let a ball be supposed about to take place. Minuets were the favorite dances of both the King and Queen. They were the most tedious, wearisome things which can be conceived. Chairs were placed for the King and Queen at one end of the room, generally an oblong square; within was a space previously marked out by ropes, covered with scarlet cloth. Without those ropes, on either hand, were seats for the company, and the space within, in front of the King and Queen, was occupied by the dancers, who, it had been previously arranged, were to figure on the occasion, and sat in a particular place, stiff etiquette governing all. Those of the company only were permitted to dance who had received tickets for the purpose from the Lord Chamberlain—that official on such occasions figuring as a sort of Beau Nash. The dancers must have undergone the ceremony of a presentation at a previous levee if they designed to exhibit upon the occasion. The minuets began at nine o'clock, by which time the company was expected to be seated in exact order of precedence. The band in attendance played "God save the King" as the royal pair entered, conversing at first indifferently with the company for a short time before they took their seats. The dancing began according to the order of precedence, even with brothers and sisters together, and after the order expressed upon the tickets with which they had been provided. The minuet, tedious and stiff as it was, being concluded, the lady who had danced was expected to pay a formal respect to their Majesties. Having done so, she resumed her seat, and her late partner led out a second lady. When these tedious, tasteless minuets were concluded, the country dances began, and while these were proceeding, generally about eleven o'clock, the King and Queen withdrew unnoticed. Seldom more than ten or twelve couple danced, and the whole was over generally a little after twelve o'clock.

The exceeding stiffness and etiquette of these balls, altogether modeled on those of the German Courts—the starchness and parsimony in the palace—contrasted ill with the ease displayed in the entertainments given by the nobility, in which the princes of the reigning family mingled. They were ready to accept invitations where they found more enjoyment; while, on the other hand, the effect was injurious, by the desire to please them becoming extended into invitations from almost all who could expect the honor of making them their guests, some of whom were by no means the most desirable of associates. The Prince of Wales, not as much Germanized as some others of his family, invited to balls, masquerades, concerts, and similar entertainments, entered into them with great zest, and sometimes relaxed in company that would never have been admitted into the royal circle, worthy or unworthy of the honor, as it might happen. At length, the princes sometimes took a part in public scenes inconsistent with decorum. It is a consequence, perhaps, of the influence of power upon limited minds, that monarchs in general, and the house of Hanover in particular, have had no great cordiality with those of their offspring or connections that were next in succession; and, while in sound health and mental straightforwardness, were ever ready to exclaim with King Henry,

“Dost thou so hunger for my empty chair,
That thou wilt needs invest thee with mine
honors,
Before thy hour be ripe?”

whether any occasion existed for it or not. To this George III. was no more an exception than his grandfather. Fashion did not vary the less for the starch etiquette kept up at court. That of the men, however, fluctuated much less than that of the other sex; while, compared in simplicity to the present male habiliments, it was still complex and often tawdry. The hair, when it was real, was curled horizontally upon the temples, and well sustained with pomatum, powdered, no straggling hairs being suffered to disturb the evenness of the poll, which was shaped daily by the hairdresser who attended for the purpose. A stout club hung down the center of the back, generally tied with black ribbon, that, or the pigtail, being the inseparable companion of the blue and buff, with metal buttons. Sometimes the

breeches were of greenish cloth, having a sufficient space between them and the boot-top to display about an inch of the fine cotton stocking worn under the boots, the latter held up by leather thongs around the knee. There was another mode of keeping up the boot, which most elderly people must remember, and all who ever followed Pitt in the street. It consisted of a buckle in the back part of the boot-top, connected with a strap from the back of the breeches knee. To Pitt this was needful, for his legs were calveless, but they displayed the stockings as before described.

The hairdresser was then a most important personage, and generally in attendance about breakfast-time. He shaved, he dressed the club, powdered and tied the hair, and related at the same time things which he did and did not know, to vary the monotony of his operation. If the master of the house intended to dine out, the tonsor must come a second time to renew the honors of the head. The lady of the house was, in those days, as dependent as her lord upon the hairdresser; but some had female attendants who could adjust the hair. Still no lady of the *haut ton* would suffer her head to be adjusted by any but a well-known professor—some renowned Truefit of the hour, in full reputation. Sometimes one operator was so much in demand, and it was so needful in the circles of fashion to boast of his skillfulness, that ladies, the day before the court-day, had their heads dressed, and sat up all the night to secure the famous *friseur's* services. On all occasions, in those days, full dress was very carefully regarded. But among men the cocked-hat was at length superseded by the round, though no one before would go to the opera or a dinner-party unless *à la peau bras*, the hat made to flatten for convenience. The white neckcloth was indispensable, as well as silk stockings, shoes, and buckles. Ruffles were worn at the bosom and wrists in full dress, but otherwise discarded. In the last century the coat-buttons were worn uncommonly large. Some were convex, being glazed, with bits of colored glass withinside, which rattled as the wearer moved. What were called Pierrot buttons, and others of cut steel, were worn often upon the cuffs. Brown and pea-green were favorite colors. Straw coats were made to answer to the straw so much used in female habiliments.

Blue and buff were the opposition colors; blue and red were the court colors. A walking-dress, common among staid gentlemen, consisted of a single-breasted coat, breeches of cloth or satin, hose of white silk, or white with longitudinal blue stripes, high shoes, and silver knee and shoe buckles. The latter were large, and their forms were often changed. Shoe-strings were censured as revolutionary innovations. A long cane, with a black silk loop and tassel, was common in the hand, often gold-mounted. The Hessian boot only came in at the commencement of the present century.

The dress of the army was kept to the Prussian model long after its boasted system of dress and discipline was shown to be worthless. The convenience of cropping the hair before spoken of, was met by the anti-Gallic prejudices at the head of the army. The allowance of pipeclay, the hard stock, stiff tight dress, and carrot-shaped leather pigtail, flourished in the most approved mode when the inconveniences of the whole might be seen at a glance. The French system was to lighten and disembarass, the German to stiffen and load. The coats were long-skirted, the gaiters came up to the cloth breeches at the knees, and a cocked-hat crowned all, except with the flank companies, which wore caps. The dress of a regiment in the old costume would now be thought very singular. It is well these things are changed for the better. What the old system cost by its sluggishness of movement and pain, as well as awkwardness in managing the limbs, only those knew who experienced it.

Down to a comparatively late period of the last century, the expense of articles of dress had limited them to a class able to expend no inconsiderable sum upon the person. This expense was at one time an important distinction between different classes of persons. It separated the rich from the poor. But trade and commerce obliterated this distinction by enriching traders as brainless fashion styled those, however honorable, which it had not chosen to enlist in its checkered ranks. Embroidered suits became on the wane even for full dress. The appearance of a nobleman or gentleman now in a suit of *gris de Dariée*, with embroidery down the seams, would only recall to mind a merryandrew, especially when to be well dressed is considered to be so dressed as

in no way to call for remark from an observer—the best rule ever dictated for forming a judgment upon the costume of another.

Carmelite-colored velvet, decorated with jewels, would now be thought very much out of the way, and a nobleman in “Emperor’s eye” of the old cut, with silver seams, or in pink velvet and silver, would appear “wondrous strange.” At the time alluded to, the Prince of Wales dressed with the most prodigal costliness. His mother tamboured waistcoats for him with her own hands. He was sometimes seen dressed in green velvet with silver embroidery, in brown velvet with cut steel buttons, having mottoes engraved upon them, costing three guineas each, or claret-colored velvet over which was laid a net-work of gold thread, breeches of rose-colored satin, and ruffles of Brussels lace. His extravagance in dress was noted and described whenever he appeared in public. Sometimes he wore a coat of balloon satin, silver embroidered. He was closely followed by all the young men of fashion, who vied with each other in imitating even his mode of walking. The ladies sometimes emulated it, and called it the “Prince’s Lounge.”

The changes in dress which followed those times in public lapsed into half-boots and tight pantaloons, with long blue coats or buff leather breeches, and blue and brown top-boots. Those before mentioned were a long-standing costume, existing in solitary examples down to a comparatively recent period, together with the most attenuated of pigtails. Braces were not in vogue, and four or five inches of the shirt were generally visible above the waistband. The half-boot, before the Hessian was introduced, seldom reached more than half-way up the leg, finishing with a black tassel. The pantaloons were generally knit, and lemon, blue, or black of color. The full dress was carefully adjusted: a blue, green, or claret-colored coat, white waistcoat, and lemon-colored brown or white kerseymere breeches, with silver knee and shoe spring buckles. The stockings were of white silk, a cocked-hat was still in use; and when mourning or profession dictated, black was necessarily worn. Boots were never tolerated at dinner tables. The late Duke of York being engaged to dine with Mrs. Crewe and a party, having been detained, and on arriving not being out of boots, would

not dine with the company, but was served in a room alone, and then joined the gentlemen over their wine when the ladies had retired to the drawing-room. Had he joined before in a morning dress, it would have been considered an act of great rudeness, affording a singular contrast to the disregard of dress at dinner parties now where ladies are present. There is a just medium in all things, but this species of respect to the sex is due, and in no way to be censured.

The above costume in full dress was followed by the pantaloons with silk socks and shoes, and then by the Sarmatian or Dacian trowser, whichever it be, and light boots, as if to afford an opportunity of dressing for the table with the utmost possible expedition. On the whole, save in the slovenly look about loose morning-coats, the present costume is cheap, unpretending, and except the coming booted into the drawing-room, much more rational and manly than that of our youth, when the Opera, Ranelagh, Vauxhall, and the theaters were visited by the noble and wealthy, as well as the other classes, and the brilliancy of the company was equaled by the high order of the entertainment, particularly in the great theaters now forsaken by the noble, educated, and wealthy. The latter can rival the nobility in expense; good breeding with exclusiveness alone remains as a distinction. Mr. Scripp's equipage may rival that of the premier peer, although no one would mistake him for a gentleman, even where he would be tolerated for his wealth, and his want of education overlooked, for gold renders ignorance legitimate, and sanctifies the lowest companionships in the highest quarters.

The *ultimus Romanorum* of his district might be seen now and then, a few years ago, in his leather brogues, brown tops, pigtail, and blue—a modern antique. Even he would slide into the fashion of the present day had he the heart; but that organ is not with the passing hour, but belongs to a parted generation. Still he carries the *morgue* of the old school, with its innate good breeding, which age never changed, nor poverty extinguished. The hotel waiter always discerned the gentleman through the threadbare coat. The superiority of the carriage of one of the class of the olden time can not be questioned, as far as carriage is concerned. Perhaps there was nothing about the old

school of fashion really superior to the present; but there was a much greater deference for the fair sex, more gallantry, more attention to minute things, and a suavity of manners inculcated or produced by these in combination. Mentally it was coarse and even vulgar in its pleasures and amusements, ill-judging, narrow-minded and unlearned, except in verb and noun-book Latin and Greek. Some were hard swearers, riders, and pottle-deep drinkers; bull-baiters, dog and cock-fighters, and pugilists, after Mr. William Windham's own heart. They were up to the chin in prejudices, yet the good were very good. They were hospitable, generally kind to inferiors, and did not venture to presume in any way, especially as independent actors or thinkers, and they were not given to wounding the feelings of others. Such were the race, a very few of whom may be recognized yet by their leather integuments and a deficiency in the study of *Locke on the Understanding*, when entering into an argument. They must all in a short time be numbered with Cuvier's races of the Mastodon Megatherion, and other extinct objects in animal history. None of this genus were of the Chesterfield school of gentlemen. Thus, for example, they would not have ruled Ireland as he did, but have used the *fortiter in re* alone. They would most of them have prescribed religion in the way of a political receipt, in place of letting men believe what they saw fit; and they had a rooted dislike to foreigners, more especially to Frenchmen.

The traces of the old school in England began rapidly to diminish between 1820 and 1830. By the latter year it was the same in France, accelerated by the Revolution of that period. On the return of Louis XVIII., a host of emigrants and adherents of his family had returned at the same time, but, in imitation of the old court, retained the costume of the departed era, as well as the manners; but France had changed, and they could not see and adapt themselves to it. The old dress was a part of loyalty under the restored *regime*. At seven in the morning in 1818 and subsequently, might be seen elderly and aged men in the dress of the court and people of the years '89 or '90—buckles in their shoes, stockings white, the coat of the old cut, pigtail, powder, ruffled wrists, and sometimes a nosegay and the cross of St. Louis in the button-

hole—on the way to prayers. They were the leather broguemen of France—the living representatives of a dead age. An odd figure they cut by the side of the military men and citizens who had sprung up while they had expatriated themselves, and imagined that the changes and battles of twenty-five years had not altered the pictures of the past inscribed on the tablet of memory. In England the natural course of time had made the men and fashions of which we speak obsolete. In France—but the memory of the reader will fill up the hiatus with the astounding events which have been so long before the world. This by way of episode.

To return to the previous subject. Dress was a study in those days for small intellects. The man of title who designed a new coat, collar, or a fan-tail skirt—a new cut one—was noted in the fashionable papers as a genius. The Prince of Wales expended much time in audiences to his tailors, almost diurnally; and he is said to have been the inventor of numerous shapes and patterns. Yet he would sometimes wear a favorite article of dress, and have it patched once or twice before he would leave it off, his wardrobe being at the same time crammed with innumerable duplicates of a similar kind, bran-new.

The vagaries of fashion have their cycles. In this respect the modern do not differ from the past times. Persons in years see the fashions of their youth come round again. Fashion finds relief from a lack of fresh invention in a sort of planetary rotation. The acme of the mode to-day changes into a vulgarity to-morrow; and remaining for a time in abeyance, becomes once more the favored of the hour, the supreme *par excellence*, until it is a second time buried, to undergo a third exhumation at a remote day.

To describe and contrast the present fashions with the past would be superfluous, as the observer can do it for himself, having the past sketched out before him. The present, as regards the full or undress of the men, is simple, and in some respects slovenly in both cases, but it is unpretending. That of the ladies, no language we can command is capable of sufficiently discommending. If the study to disguise and degrade female form and loveliness had been prolonged for an age, it could not have been more successful to that end.

As the fashions changed in dress, so they fluctuated in equipages. We can just remember when a country gentleman or two, of fortune, drove a coach and six, but that is very long ago. Four are a sufficient superfluity at county meetings. The carriage was far more showy and complicated in those days, exhibiting less of good taste, and an inferiority in workmanship. Carriages were often fanciful in form, in consonance with the caprice of the owners, guided by no rule but eccentricity of appearance. Everybody who remembers the equipage of Romeo Coates, at a later time, can readily understand how carriage-building might be varied without the representations of chanticleer in bright metal, which covered his vehicle and harness, at which the boys in the street used to crow like cocks.

Hatchet, of Long Acre, was in those days the principal carriage-builder, and greatly improved the vehicles he constructed. The older carriages were for the most part lumbering vehicles, after the German model. Hatchet invented one carriage which was called a Tim Whiskey, and went upon three wheels. The chairs for going to court and evening parties, used by ladies, were lined with red morocco leather, and often decorated externally with very fantastical ornaments in silver.

The intermediate vehicles between the chair and coach were numerous, all are of later years, now superseded by lighter conveyances, plainer, and of better fabric. The *vis-à-vis* for two persons facing each other, was used to attend at court or at dinner parties in full dress. It was in general superbly decorated, and drawn by horses richly caparisoned, with a couple of footmen behind, sometimes more, and in rich liveries. This is now obsolete, the vulgar brougham replacing that carriage, and indeed becoming the substitute for larger carriages for the sake of economy, with a single horse tugging a whole family to a dinner party, which, had the old head-dresses and wigs been still worn, would not have been possible.

The lofty phaeton, high enough to look into a first-floor window, and well calculated to break its owner's neck, has no counterpart now. Some were called from their make "arch-bottomed," and many had silver panels. Those low vehicles which bear the name now, at donkey-stands and watering-places, have not the

remotest resemblance to them. Their wheels were large, and their movement stately, four horses being generally harnessed in them. George IV. was as conspicuous for his carriage fancies as for his painstaking in coat-cutting. He rode at one time in a carriage surmounted with a crown and plume of feathers waving over it. The angles consisted of fluted pillars of a rich gold color, the inside was lined with velvet and gold. Some of the carriages of that day had the bodies fancifully painted with aerial spirits, emulating, with expanded wings, the speed of the horses that drew them. Some exhibited fat Cupids amid pastoral scenes, with shepherds. Emblems of victory, graces, and loves, were displayed upon the panels of many, allegorical to incomprehension. Mother-of-pearl was resplendent on the bodies of others, and deep purple spotted with silver, surmounted with foliage or mosaic work, generally straw-colored, adorned others. The Prince of Wales used to go down to Brighton in a carriage with three horses, tandem fashion, the foremost ridden by a postilion, the others driven by himself. It was subsequently that the graceful and compact curricule came into use, its handsome mountings, and pair of light horses, with a couple of mounted attendants, on the whole, the handsomest equipage for two persons ever displayed in park or road. The mounted attendants would now be deemed an outrage upon economy. Afterward arose the passion for driving four-in-hand, that

subsequently degenerated into a coach-driving mania, not yet extinct. Other vehicular follies had their day, and have gone out of vogue. The turn of the present time toward the useful, in place of the superfluous, is a mark of the good sense of a more advanced era. Here, too, the wealth of the *parvenue* galls the kibe of the starch patrician. A blending is inevitable, the pride of feudality sympathizes and fades with the reign of ignorance. The scientific railroad leaves the deserted sluggish turnpike to the pedestrian, and as with the embroidered coat, already observed, the unsustainable pretension becomes valueless. Formerly it was the fashion to be prodigal of expense, where at present even a peer will drive a hard bargain. The old extravagances of the English traveling upon the continent were proverbial. A change to the other extreme has come upon them. The liberal, tasteful, and showy, are placed below their level. A paoli in Italy, or a kreutzer in Germany, or a shilling at home, are now matters of dispute with noble or plebeian. We are become rather too much colored with trading parsimony. Rank now has its money instruments, and dreams of profits. They who meddle with the shop are certain to become infected with its spirit. It will sully the most patrician fingers as certainly as his who only discounts paper at ten per cent, till at length generosity is treated as a scarecrow, through its antipathy to the spirit of accumulation.

R.

From the London Quarterly.

THE MERRIMAC AND THE MONITOR.*

THE civil war now raging in America seems destined to furnish Europe with a

* *Shot-proof Gun-Shields as adapted to Iron-Cased Ships for National Defense.* By Captain COWPER PHIPPS COLES, R. N. London. 1861.

Second Report of the Royal Commissioners on the National Defenses. London.

What is good Iron, and how is it to be got? By R. H. CHENEY. London. 1862.

series of surprises which defy the calculations of our most sagacious politicians, and at first sight appear to set at naught all the experience hitherto gained in the wars on this side of the Atlantic.

The war itself, not only in its origin but in its duration, has been of a nature that no one anticipated; and even at this moment the most experienced statesmen are

as unable to predict when or how it may end as they were to foresee its commencement. The siege, if it may be so called, of Fort Sumter, which was the first event of the war, is unlike anything that is known to have occurred in Europe. We have no record of a powerful casemated fort in the sea being forced to surrender to the attacks of batteries situated on the shore before a breach was made or a single gun dismounted; and what is more wonderful still, before a single man was killed or even wounded on the side either of the attack or the defense. The battle of Bull Run, which was the next great event, is equally without a parallel in the annals of European warfare; and so, too, is the duel recently fought between the two iron-plated vessels at the mouth of the James River. This duel was, so far as we know, almost as bloodless as the siege of Fort Sumter, and, if not so momentous in its political consequences, it is yet well worthy of the most attentive consideration of all persons interested in military matters. We could afford to smile at the siege of Fort Sumter, and did not think that any knowledge was gained through that event, as to the advantage of defensive works. The battle of Bull Run was looked upon as so exceptional that no one attempted to draw any military conclusion from its phenomena. But the action between the "Merrimac" and the "Monitor" has aroused the attention of Englishmen almost as much as the "affair of the Trent;" and the fight has been discussed both in Parliament and out of doors, with a degree of interest and an amount of excitement scarcely surpassed by the announcement of the seizure of the Confederate envoys from under the protection of the British flag.

The difference, however, in the manner in which the two controversies have been conducted is striking in the extreme. There are few Englishmen who are not capable of forming a sound judgement, when they give themselves the trouble of thinking, regarding a point in which the national honor is concerned; and the unanimity and good sense shown by the whole people on the first occasion was as striking as it was honorable and creditable to us a nation. Unfortunately, however, there are very few persons who have the special knowledge which is requisite to draw any satisfactory conclusions from an unusual and complicated military event, or who are competent to give an opinion on

the recent experiment of a fight between two iron-plated vessels. The consequence is that a panic had seized the public mind. Every thing is considered as known, every thing as settled, by this one action. Both in Parliament and outside, the most violent opinions have been asserted in the most dogmatic manner, and Ministers have been forced by the clamor to give way against their conviction on matters nearly concerning the interests and the safety of the country. Had Parliament not been sitting at the moment, had more time been allowed for reflection, or for obtaining more accurate information, the result would probably have been different; but while things are in this position, it may be well worth while to examine the details of the fight in Hampton Roads a little more closely than has hitherto been done, and to see if any modicum of real knowledge can be extracted from the vague and scanty intelligence which has yet reached us.

The first vessel that took a part in this memorable action was the Merrimac—since called the Virginia—originally one of six first-class wooden frigates, built by the Americans in or about the year 1855. The Minnesota and the Roanoke, which also appeared on the scene of action, are sister vessels; their tonnage ranging between thirty-four hundred and thirty-six hundred tons, and equal to that of a first-rate line-of-battle ship. (The tonnage of our Duke of Wellington, one hundred and thirty guns, is only thirty-seven hundred and seventy-six tons.) They were all screw steamers of the most improved class, and it was to match them that our Orlandos and Merseys, and other vessels of that description, were constructed. The Merrimac was sunk and supposed to be destroyed by the Federal officers, when the Confederates took possession of the naval yard at Norfolk. She was, however, afterward raised and converted into an iron-plated vessel of the most formidable description for inland defense. So far as can be made out from the very imperfect descriptions which have reached this country, it seems that her top sides and upper deck were entirely removed flush with the gun-deck, and for these a casing of iron was substituted, sloping inward at an angle of forty-five degrees. This coating must consequently have extended some feet beyond the original sides of the ship at the water-line, to

which it was carried, on the assumption that she floated to her original depth. Upward it extended to the level of the original upper-deck, which was considerably narrowed, and was also covered with thin plates of iron. The weight of all this additional armor being considerably in excess of the portions removed, and for which it was substituted, seems to have lowered her line of flotation, as was intended, some three or four feet, so that her armor extended to that distance below the water-line; but her port-sills were also brought so low as to render it extremely doubtful how she would behave in the open sea, or with any swell on.

Her armament consisted of twelve guns, so disposed that four or five of them were broadside-guns on each side, and either two or one facing forward and aft in the direction of the keel. The accounts are not quite clear on this point, which is in fact of very little consequence. The broadside guns were eleven-inch Dahlgrens; the fore and aft guns seem to have been rifled, though on what system is by no means clear.

In addition to these she was fitted with two prongs or rostra, projecting from the bow, it is said, like plowshares. These were intended to run into and pierce any vessel she might be engaged with; and from the use made of them, they appear to have been as much or more depended on by her officers than even the armament detailed above.

Thus fitted and equipped, the Merrimac left her moorings at eleven o'clock on the eighth of March last, and steamed down the James River to Hampton Roads, at the entrance of the Chesapeake Bay. Here she found two frigates belonging to the Federal navy, lying at anchor—the Cumberland, a sloop of twenty-four guns and seventeen hundred and twenty-six tons, built in 1842, and the Congress, by some said to be the old Congress of our war with the United States, by others to have been built in 1841—at all events bearing fifty guns, though only eighteen hundred and sixty-seven tons burden. Both were sailing vessels, and, as may be supposed from these particulars, neither of the first class, and the guns of the Congress at least must have been of very small caliber to enable so small a vessel to carry so many of them.

On approaching the Federal squadron, the Merrimac seems to have singled out

the Cumberland for her first victim, and, after firing once or twice into her from her bow guns, ran straight at her, and “gave her the stem” immediately abreast of the foremast. She then rounded off, firing shell from her broadside-guns into her adversary; and, having gained a sufficient offing, again ran into her right amidships; on both occasions making such holes in her sides below the water-line as to insure her destruction, even without the assistance of the shells, which seem, however, to have spread havoc and destruction wherever they struck the vessel.

While thus engaged with the Cumberland, the Merrimac seems also to have fired occasional shot and shell into the Congress; and having completed the destruction of the former vessel, she turned her serious attention to her consort. A few rounds, however, and the example of what she had just witnessed, convinced the latter that resistance was hopeless, and she hauled down her flag and surrendered—not one moment too soon—as a very few minutes more would have sufficed for her entire destruction from the shells of the Merrimac, without the necessity of any attempt to run into her.

Having destroyed these two vessels, the Merrimac seems to have amused herself for some time in playing at long bowls with the shore batteries, and neglected her opportunity of destroying the Minnesota, which she could easily have done, as the latter had run aground in coming to the assistance of her consorts, and lay at the mercy of the shells of the Merrimac, though of course out of reach of her prow, which at that time the officers seem to have considered their most powerful weapon of offense.

As night approached, the Merrimac retired, either to refit or replenish her ammunition; feeling no doubt perfectly secure, from the experience of the day, that the rest of the Federal squadron would fall an easy prey on the morrow. Most fortunately, however, for the honor of the Federal flag, a new competitor had appeared on the scene of action before the day dawned, in the form of the now celebrated Monitor; which was able not only to check the Merrimac's career of victory, but almost to turn the tables against her.

According to the accounts we have received, the Monitor is a vessel one hundred and seventy-two feet long over all,

and forty-one feet four inches in extreme breadth. Internally she is a complete iron vessel, composed of plates of half an inch in thickness. Over this, to the depth of some three feet below the water-level, is a coating of twenty-six inches of oak, and over this again a five-inch rolled plate of iron. The composition of her sides seems consequently to be almost identical with that of the *Warrior*, the weight of iron being nearly the same, though with a slight difference in the mode in which it is disposed, but with eight inches more wood: these, however, seem an unnecessary incumbrance. Her deck is planked with seven inches of timber, over which is one inch of iron, and she floats with her deck only two feet above the water; and may be more appropriately called a raft or a barge than a ship—it being evident that she could hardly live in a sea-way.

The great peculiarity, however, of her structure, is the tower or turret, which rises above the deck in the center. This is described as in appearance like a small gasometer. Its external diameter is twenty-one feet six inches,* its height nine feet, and it is composed of eight thicknesses of one-inch plates of rolled iron. It stands on a turn-table, which is moved by steam-power between decks, and is armed with two Dahlgren guns, placed side by side, and firing through two narrow port-holes in the side of the tower. These are further protected by shields and pendulums, intended to prevent the entrance of the enemy's projectiles when the guns are withdrawn.

No sooner had the *Merrimac* appeared on the scene of action on the following morning, than the gallant little *Monitor* proceeded to encounter her, and for five hours the combat raged between these two strange-looking antagonists. During the course of it the *Merrimac* endeavored to run down or pierce the sides of the *Monitor*, but, so far as we now know, with singularly little success, having injured herself in the attempt much more than she did her enemy. She also tried boarding, but equally in vain. Every opening was closed with iron gratings, and no hole left for the boarders to enter;

while the tower could be turned round so as to sweep the deck either way.

Foiled in these attempts, the vessels contented themselves with a cannonade, which appears to have been almost as innocuous on either hand as the celebrated fight that caused the surrender of Fort Sumter. Toward evening the action ceased, and both vessels withdrew, each satisfied of the impregnability of the other. During its continuance, however, the *Merrimac* had fired occasional shots at the shore batteries, or at the *Minnesota*.

What surprises us most in this, as in every other action of this great war, is the want of dash and energy shown by the commanders on either side. Why did not the *Merrimac*, when she found she was invulnerable, and that the *Monitor* could do her no damage, turn at once to the *Minnesota* or *St. Lawrence*, and destroy them with her shells? or why did she not at once steam up the Potomac, break down the Long Bridge, throw her shells into the capital on the one hand, and the Federal camp on the other? Such an action might have had some influence on the fate of the war, and here was a golden opportunity that may not soon occur again. Why, on the other hand, did not the invulnerable *Monitor* try the same thing at Richmond? Up to the date of the latest accounts neither has attempted any thing further; so, while the combatants are reposing on their laurels and recovering their breath, let us try what crumbs of information we can gather from the late action of Newport News.

The experience gained from this most remarkable encounter may be conveniently examined under four separate heads:

1. As regards the use of iron-plated vessels as rams.
2. As to the effect of horizontal shell-firing against wooden ships.
3. As to the experience gained from an action between two iron-coated men-of-war; and
4. As regards the probable results of an action between an iron-plated vessel and a fort; the latter being the point on which it has been considered as decisive in this country, though, strangely enough, it is the only point of the four in which the action affords us no direct information whatever.

With regard to the first branch of the

* If only breech loading guns were used, a much smaller turret would suffice; but one immense advantage of the "Ericsson turret" over the "Coles shield" is, that it admits of the use of muzzle loading guns, which the other does not.

subject, the result, so far as it goes, seems to be adverse to the idea of using iron-plated vessels as rams. It did not require this action to tell us that the bilge is the weakest—the stem the strongest part of any vessel; and that if any ship of thirty-five hundred tons caught one less than half her size at anchor, and chose to run full tilt at her side, she would certainly drive it in and sink her.

Unfortunately, we have already too much experience of this sort. In our own river Thames, even little penny steamers have an unpleasant knack of running their noses against sailing vessels twice or three times their size, and with the uniform result of piercing their sides. The only unexpected feature is that the attacking vessel not only receives no injury in her prow, but that neither her engines nor any part of her moving-gear are deranged by the shock. It is extremely probable that if any wooden screw line-of-battle ship or frigate ran full tilt against the side of another vessel of equal, or even of superior weight and power, she would sink her. This, however, is a point on which naval men are by no means agreed; but, supposing it granted, it by no means follows that the addition of an iron beak gives to an iron vessel an additional advantage at all in proportion to the immense increase of strength which is certainly gained by the iron plating and stronger construction of that class of warships, and it is consequently by no means clear that they will be successful as rams. What the present experiment teaches us—if it teaches any thing—is that when one iron vessel especially fitted for the purpose tried to run down another of about half her size, she failed signally, and did herself more injury than she did to her adversary. After all, however, the question is probably an idle one. We can hardly fancy the circumstances in which a steamer, unless disabled, should allow herself to be run into in this manner. Putting the helm up or down—forging ahead, or backing astern—any movement would prevent it, so it is scarcely likely to occur as between iron steamships in action. As against wooden ships it is useless, for it can not now be denied that horizontal shell-firing has sealed the doom of wooden ships of war, and our second head of inquiry is thus finally disposed of.

Those who have had opportunities of

following the progress made in this branch of artillery practice since the Russian war have long been absolutely convinced that it only required one naval action to settle the question forever. In the two hundred and sixteenth number of this Journal, (October, 1860,) an article appeared describing the various means of destruction which had been invented for this purpose, and pointing out the utter impossibility of using wooden vessels for fighting in the present state of naval science. To use the emphatic expression of Sir John Hay, in speaking in his place in Parliament on this subject, "the man who goes into action in a wooden vessel is a fool, and the man that sends him there a villain."

Although all this was perfectly well known to the initiated long ago, the advantage gained through the American action is incalculable. The public now believe what before was accepted only by men of science. Notwithstanding all that wonderful tenacity of faith in the ancient ways which is characteristic of a British Admiralty, their wooden idols must now at last be abandoned. Although it is reported that the dock-yard authorities have bought and converted more timber during the last financial year than they ever did before, they too must be sacrificed. The public now know that a wooden man-of-war is a mere box of lucifer matches, and that the first shell fired into it explodes the whole. The question has passed from the region of theory into the domain of fact, and woe to those who refuse to be taught by such experience. But it is needless to reiterate what was said a year and a half ago as clearly and as strongly as it could now be put.

We now come to the third branch of the inquiry, and we feel that we should require to know more than we yet do of the construction of the two vessels engaged, before it would be justifiable to hazard any very positive opinion on the subject. It appears, however, tolerably certain that the Monitor's turret was formed of eight thicknesses of one-inch iron plates. Now, it happens that a target has recently been tested at Shoeburyness, composed in nearly the same manner, but rather thicker, and having the additional advantage of a two-inch plate on the outside. It was made in the very best manner, and of the very best materials. At two hundred yards, the sixty-eight-pound

solid shot and one-hundred-pound Armstrong both pierced it every time; and though the shot themselves did not go actually through, they sent such a shower of splinters into the sea beyond, as would certainly have killed every man who had happened to be inside a tower protected by so frail a covering.

Whence, then, arises this difference between our experiments and those of the Americans? Is it that their iron is superior to ours, or their workmanship better? There is not a shadow of a reason for suspecting either the one or the other. On the contrary, the iron for our targets has always been selected with the utmost care, and the workmanship the best that the skill of this country can produce. Nor does there seem to be any thing in the shape of the turret to account for the difference in its resisting power.*

If, therefore, neither the material, nor the workmanship, nor the form will account for the immense difference between the results of the American experience and ours, it is probable that the solution must be sought in the nature of the artillery employed.

The heaviest guns of the Merrimac were apparently eleven-inch Dahlgrens. These are practically shell-guns, like our ten-inch guns; and though solid shot may be fired out of them, this can not be done without danger, and can only be with very reduced charges. If the Merrimac only fired shells, or if is true, as the Duke of Somerset stated in the House of Lords,

* If there is any thing to account for the difference, and if it is possible to render such a tower invulnerable, it is most fortunate that the Government has not proceeded further with Captain Coles's cupolas. A perpendicular tower is not only more roomy and capable of far better ventilation, but it occupies far less room on the deck, and avoids the great difficulty and expense of Captain Coles's proposal, which consist in its junction with the deck, and the protection of its lower edges. If, therefore, it is possible to protect this tower, even at the expense of coating it with four and a half-inch plates on the outside, or five or six thicknesses of inch plates internally, it will be found as great an improvement as the sloping sided shield advocated by Captain Coles—but which was suggested to him by Mr. Scott Russell—is over the curvilinear cupola, which is the only invention Captain Coles can really lay claim to, but which never was and never could be carried into effect. One of the many objections to Captain Coles's system is that only breech-loading guns can be used in his cupolas, and the largest class of guns can not be made breech-loaders; so that a cupola-ship may any day find herself over-matched by a vessel of a much smaller and less expensive class.

a few nights ago, that the initial velocity of her projectiles was only seven hundred feet in a second, the whole mystery is cleared up. We know perfectly well, and knew long ago, that an eleven-inch shell fired with so small an initial velocity would barely make an indentation on such a target, and that even a one-hundred-and-eighty-pound solid shot fired with reduced charges would hardly do more damage; but we also know that at two hundred yards a sixty-eight-pounder solid shot, fired with an initial velocity of sixteen hundred feet a second, would pierce it, and at shorter ranges go clean through it.*

We know so little of the composition of the Merrimac's sides, that it is perhaps even more difficult to speak with certainty regarding her. But knowing what her tonnage and displacement were, and admitting that she is now sunk three or four feet below her proper load-water-line, we can calculate approximately what weight of armor she could carry; and if we spread this over her, we arrive at the conclusion that her armor was not heavier than what we are in the habit of experimenting upon. Nor will the sloping position in which it was placed suffice to solve the difficulty. On this point our experiments have been too numerous and too conclusive to admit of any doubt. It was stated the other day by Sir John Hay, the Chairman of the Iron-Plate Committee, at the meeting of the Institute of Naval Architects, that the result was pretty much the same whether a given weight of metal was placed perpendicularly to the line of impact, or whether it was spread out into a thinner plate to cover the same vertical height as would be required for that purpose, if placed sloping at any given angle. In fact, there seems no possible solution of the mystery from the data at our command, except the one suggested

* A curious illustration of the loss of power from reduced velocity is seen from an experiment frequently tried at Shoeburyness. A one-hundred-pound shot is fired from an Armstrong gun at a target with the usual charge of powder, say fourteen pounds. The next round a two-hundred-pound shot is substituted, but with ten pounds of powder. Although the velocity is not, of course, reduced nearly a half by this process, it is found that the effect of the larger shot fired with the reduced charge is contemptible in comparison to that of the smaller shot with the larger charge, and that the former is, in fact, of no use as against a well-made iron target.

in the previous paragraphs, that the Monitor fired nothing but shells, or fired shot at such low velocities as to be comparably innocuous. If she fired solid shot at such velocities as are usual in our service, either the Merrimac's sides must have been stronger than any thing yet constructed on this side of the Atlantic, or all our science is naught, and we have learned nothing from the numerous costly experiments we have hitherto made.

The fight in Hampton Roads proves nothing directly with reference to the fourth branch of our inquiry, inasmuch as we do not know of any single shot from the shore-batteries having struck the Merrimac; and if any shot from that vessel struck the forts, we are not told what effect it produced. As a contest, therefore, between guns on shore and guns afloat, the action might as well not have been fought. It seems, however, to be inferred that because these iron-plated vessels can not be injured by shot from other vessels, therefore they can not be injured by shot from forts.

Before jumping so rapidly to this conclusion, it would be well to bear in mind, that if the American fight proves any thing, it proves too much. If forts can not stop iron-plated ships, no more can other vessels of like nature. If, for instance, we had an iron-plated Merrimac of 3000 or 4000 tons, armed with the heaviest ordnance, and lying at Spithead, and a little 2-gun Monitor were any morning to pay us a visit from Cherbourg, what is there to prevent her steering straight into Portsmouth harbor and burning and destroying every thing she finds there? It is certainly not the iron-plated frigate that can stop her; and if we are to accept the experience of the American action as final, it would be as strictly logical to argue, that if we had fifty of such iron-plated ships in the Channel, we could not prevent a single turreted gunboat from entering either Portsmouth or Plymouth harbor, or from running into the Thames or Mersey, and burning and destroying every thing within reach of her shells. If this really were so, England's doom is sealed; and we had very much better, like Captain Crocker's coon, "come down" at once. The truth, however, seems to be, that the fight between the two iron-plated vessels in Hampton Roads really proves nothing—taking the facts as they were understood to be when

the matter was discussed in Parliament—except that the Americans have discovered the art of fighting bloodless battles. First at Fort Sumter, then at Newport News, the firing is continued hour after hour with a fury almost unknown on this side of the Atlantic—an immense quantity of ammunition is expended; the noise and confusion are such that heaven and earth seem coming together from the exertions of these Titans; and when the smoke clears away we are delighted to find the result is merely what we used to witness with such pleasure at the Princess's Theater, when under the management of Charles Kean. In the first instance nobody was hurt; in the second, the captain caught a cold in his eye from the wind of a passing ball; and the crew were half-suffocated, the actors are, or ought to be, from the smoke they themselves had been making! We do not say that this is a perfectly accurate representation of the state of the case: more recently we have read in the newspapers an account of the death of Commodore Buchanan, the commander of the Merrimac, after undergoing amputation of the leg. What further reports of injury to the crew or to the ship may be in store for us, we can not yet tell; but it seems clear that, from whatever cause, the Merrimac has been in no hurry to resume her operations.

But the action, as we have sketched it above, is the action which in the British Senate, it is assumed, will revolutionize the art of war and change the destiny of nations. Both on the thirty-first March and on the fourth April member after member rose and spoke, and, with no more knowledge of the subject than could be crammed into him by a pertinacious projector like Captain Cowper Coles, denounced all forts as useless. With a unanimity seldom witnessed, the House shouted for gun-boats and cupolas; and so great was the excitement, that Parliament was quite prepared to assume the responsibility of superseding the functions of the executive, and actually did force the Ministers, against their own earnest protest, to suspend the execution of the permanent works, regardless of the money they were wasting, and, what is worse, of the precious time that is thus sacrificed. When the spasmodic energy has passed away, and Members have time to reflect on what they have done, all this will no doubt be repaired as far as may be; for it seems im-

possible to doubt that if we are to maintain our superiority in the Channel, it must be by providing securely fortified harbors of refuge for our fleet, and this can only be done either by building permanent fortifications for their defense, or by maintaining such a fleet of iron-cased vessels for purely defensive purposes, as would, when added to the expense of the sea-going fleet, ruin the richest nation in the world in a very few years.

Turning to our own experiments, all the conditions of which are known to us, while we really hardly know one of the conditions of the American experiment with sufficient exactness to draw a trustworthy conclusion from it, we find that almost up to the present moment the elements of defense and of attack were as nearly balanced as possible. For instance, the Warrior target, which is the best and strongest that has yet been devised, though it was not pierced at 200 yards by the 68-pounder or 100-pounder Armstrong used against it, was very seriously injured; and if the artillery had been a little more powerful, or had been placed nearer, it can not be doubted that the attack would have carried the day against this as it had against every other target that had yet been tried. But, assuming them as hitherto equal, the conditions are already changed. There is now at Shoeburyness a 300-pounder Armstrong gun, which has not yet been rifled, but which is used as a smooth-bore, firing a solid spherical shot of 156 lbs. weight. With a charge of 40 lbs. of powder, this leaves the gun with a velocity of 1720 feet per second; and at 200 yards its force of impact is as nearly as possible three times that of a 68-pounder at the same range. This gun has now been tried against a Warrior target, and with 50 lbs. of powder sent its 156 lb. spherical balls through that target, punching a clean circular hole, very little larger than the diameter of the ball. With 40 lbs. of powder it smashed the plates and broke in the sides, doing more real damage than with the larger charge. When this gun is rifled it will throw a bolt of 300 lbs. weight; and although at ranges under 500 yards this will not have a force greatly in excess of that of the 156-pounder, it will at all ranges above that maintain an immense superiority over the smooth-bore; and we may safely assert that at ranges between 1000 and 2000 yards it would pierce any thing that has yet been fabricat-

ed of wood and iron. But why should artillery stop there? If guns can be made carrying 300-lb. balls, they can be made to carry them of 600 lbs. Sir William Armstrong is prepared to make guns of that size; and is only waiting for the order to commence the work, having made all the calculations and prepared all the drawings, and having not the least possible doubt of perfect success in making a gun of at least this caliber; while the Americans talk of 1000-pounders with more show of practical sense than is to be found in most of their schemes.

There seems to be no limit to the extent to which the powers of artillery may be increased; but, on the other hand, we seem very near the limit of the strength of armor which ships can carry. Neither the Warrior nor the Defense class can support the weight of their plating over their whole body; some of the new vessels will be made to do so, but it will be at a considerable sacrifice of other qualities; and consequently the limits within which the weight can be increased are very narrow indeed. Upon another very important question, namely, how far the composition of the armor-plates can be improved, we must refer our readers to the valuable and seasonable pamphlet by Mr. Cheney, *What is Good Iron?** But it does not seem to us probable that upon the composition of the best armor-plates now known, any improvement is likely to be made which will affect the controversy. If bad iron be used, some great national disaster must inevitably ensue.

In this condition of matters it may be

* "If, a quarter of a century ago," says Mr. Cheney, "a political economist had been asked to name the conditions most favorable to the security and prosperity of the country, he could have devised nothing more promising than that supremacy in commerce and in war should be made dependent on superiority in the manufacture of iron; that iron should be the armor of our navy, and the material of our commercial marine—perhaps, too, the coating of our fortifications. Such conditions have been realized; but instead of the energy imparted by knowledge and experience, instead of the alacrity of anticipated triumph, they find among us error and bewilderment. Instead of pouring into our docks and arsenals a steady supply of impenetrable ship and armor-plates, we are disputing about what is good iron, and are struggling to use what is not. Nevertheless, the impulsion is given—ill or well the movement will go on—our wooden walls are rapidly transforming themselves into iron. The cost will be enormous. It depends on the direction for good or for ill now given to the iron manufacture whether the expenditure be not made in vain."

safely asserted that if the forts proposed by the Commission on National Defenses were erected at Spithead, and each were armed with three or four 300-lb. or 600-lb. rifled Armstrong guns, there is no spot where any ship could take up a position to bombard the dock-yard without the certainty of her being destroyed. It is no doubt admitted by the Report of the Commission that a ship might run past the forts without receiving damage. It is probable she might: but it should always be added, that if she runs past the forts, she also runs past the dock-yard; and, as far as any damage she could do to it, might as well have staid in the middle of the Channel.*

The National Defense Commissioners seem to have recommended in their Report the employment of stationary in preference to floating defenses to as great an extent as possible, because they found that the expense of a gun in a floating battery,† moved by steam-power, is nearly four times as great as that of a gun in a fort; because the repairs of a fort when once built are practically nothing, those of a steamship continuous and enormous; and because they believed that it would always be much easier and cheaper to find men to fight guns in a stationary fort than to handle them in a floating-battery in action.

They seem also to have been struck with the fact that we know the exact form of a fort which will be serviceable now and for all future time; while we do not know the form of any kind of floating defense which may not be superseded within the next twelve months. If we were to-morrow to set about building a hundred "Monitors" or "Merrimacs" or even "Warriors" or cupola-ships, the progress of discovery in this respect is so rapid,

* It should also be borne in mind that the proposed works are for the defense of the dock-yards and arsenals only, and are assumed to be the least that could be sufficient for that limited purpose. They are not schemes for making the nation secure against all chances of invasion; and, though valuable auxiliaries in that respect, much of the criticism that has been lavished upon them arises from confounding the two purposes.

† There seems no reason to doubt that the forts may be constructed for the price originally estimated. Though iron is to be substituted for granite, the thinness of iron walls, and the absence of all internal piers, will enable their size to be reduced at least one-third, while carrying the same number of guns, and so equalize the expense within very narrow limits of variation.

that before they are completed we may find out that we have again to undertake the rather expensive process of "reconstructing the Navy," and may have to repeat that operation every ten years. If, indeed, the "Merrimac" and the "Monitor" are as perfect as they are assumed to be, both the "Warrior" and the cupola pattern of ship are already superseded. It is satisfactory to think that at all events no money has yet been wasted in this last class of vessels, and there is time to adopt Captain Ericsson's invention if it should be proved as superior to Captain Cole's as it is suspected to be.

But the great fact is that there is no limit to the weight of armor which a fort will carry, or to the size of the guns that can be maneuvered on their steady platforms; while the weight of armor and of artillery which ships can carry, seems already to be very nearly reached. It may also be added that the new invention of rifling ordnance is of very questionable advantage on board ship, owing to the unstable platform from which they must be used. It requires the fixed, steady floor of a fort to enable the guns to be used with that precision which is their peculiar advantage. None of these advantages of forts have been in the smallest degree affected by the result of the American duel; and, so far as our knowledge at present extends, there seems no reason to depart from them.

It is surely unworthy of a great nation like this to say, "We must stop the forts, because we want the money for ships." If either or both are necessary for the national safety, surely the money can be easily found. At all events let the question be argued on its own merits, and let it not be said that one department is trying to abstract from the means of the other; or that sailors are clamoring for ships, because they are sailors; or soldiers asking for forts, because the forts belong to their service. But let us look at the question like men of business, and if we can discover what is right, let us set about carrying it out as far as may be practicable. The Commissioners recommended the application of one million of money to floating defenses; and if that had been appropriated at the time, it would have been quite as much as ought to be applied to such a purpose in the present transitional state of naval warfare. This sum, if it were taken up now as part of the

loan, ought to satisfy all reasonable demands, without infringing on the more permanent works, which are far more essentially necessary for any general and comprehensive scheme of national defense. Neither stationary forts nor floating defenses will alone suffice for the purpose, but only such a combination of both as shall render the special advantages of either available. But so far as can at present be seen, the greater stress ought to be laid on the forts, not only on account of their greater economy, but because of their power of using heavier artillery than ships, and with greater accuracy of aim. Such forts, too, as it is proposed to erect at Spithead appear to be of a singularly formidable description, and being situated on the shingle banks in the middle of the sea, command the whole area of the roadstead with their fire at ranges which would now be efficient against wooden vessels, and which in all probability will be equally so against iron-plated ships with the artillery which may be prepared for them before they are completed. They have also the advantage that they can — without either materially increasing the expense or diminishing the num-

ber of guns—be plated with iron of such thickness as shall render them absolutely invulnerable against any artillery; and from this circumstance, and the peculiarity of their situation, they are at the same time impregnable by any means of attack we are acquainted with.

If not capable of being used as the sole means of defense, it must be admitted that such forts must form a very important element in any scheme of defense for an open roadstead; and that with the aid of a certain amount of floating defenses they ought to render our harbors as secure as any in the world. It is, however, just this necessity of the combination of the two that renders the question so difficult to decide. The advocates for ships and the advocates for forts have both reason on their sides to a certain point, and when this is the case a little superior talent or superior energy on the side of either party can secure for it at least a temporary triumph. The true statesman sees the advantage of the combination of both, and the real man of genius is he who can appreciate exactly how much of either is necessary to effect successfully the object in view.

From the St. James's Magazine.

THE TEMPTING ANGEL.

'Twas night: the moon was beaming
Along the azure sea,
Where spectral forms were gleaming
In ceaseless revelry.

When on a cliff a mortal stood,
A man of care was he,
Who peered upon the rolling flood
With eye of mystery.

He spake not, but he heaved a sigh
And gazed along the main,
Then turned toward the starry sky,
And sighed and gazed again.

When from the deep ascending,
Amidst a wreath of flame,
Her upward course attending,
A tempting spirit came.

Her face was pale though very fair,
Her eyes like diamonds shone,
Yet seemed there something in her air
Unlike a holy one.

A dagger in her hand she bore,
Its hilt a costly gem;
And on her head this spirit wore
A sparkling diadem.

The mortal soon the spirit saw,
His breast for fear he smote,
Then turned he from the rock to go,
When thus the phantom spoke:

"Mortal, this dagger take! Nay, grow not
pale,
To every child of sorrow thus I fly.

Haste: fear not—doubt not—lift the shadowy veil
That hangs between thy clouded eye and immortality.

'Tis time to die!

"Fear not, fear not Eternity to try.
Strike—boldly strike! and leave this home of clay;

When, then like me, a spirit shalt thou fly
Midst stars, and suns, and orbs of light, to take thy heavenward way.

Come, Mortal, come!

"Shuddering thou stand'st, a poor, weak, foolish thing,

In mute astonishment and pale dismay:
Were it not better a bright course to wing
Above those orbs where ceaseless shines an all eternal day?

There is thy home!

"Oft hast thou wondered how the planets move—

How fiery comets erst their course began;
Oft has thou watched the bright sun's path above,

Still trying with impatient gaze the mystery to scan:

Thou know'st it not!

"Things yet unborn, when live they first?
Whence came

Life's fitful flame? How long this globe shall last?

Where roamed the Iguanodon? Whence bursts the flame

Of fell volcanoes, thundering forth their hot sulphureous blast?

'Tis dark to thee!

"Oft hast thou pondered how the spring flowers bloom,

Yet why they bloom or die thou canst not tell;

Oft hast thou marveled how the tempests come;

Thou knowst it not, yet thou canst break the dark mysterious spell.

Come, then, with me!

"Why art thou here? What life? What time? What death?

Whence camest thou first? Why fearest thou now to go?

Come, come with me; yield up thy fleeting breath.

One gasp, one pang, one struggle, then adieu to all below!

Farewell to Time!"

And thus the tempting angel spoke:

Aghast the mortal stood,

Then aimed the dagger's fatal stroke,

And sank into the flood!

From the St. James's Magazine.

UNDER THE SEA AND THROUGH THE EARTH.

To one uninitiated in the practical working of the science of Electricity, the *modus operandi* of transmitting electrical signals or telegrams from one spot to another, through no matter what distance of sea or land intervening, is an object of wonder, and, until thoroughly studied and comprehended, appears somewhat akin to the fabulous; nor is this feeling of the marvelous at all diminished even when the exploits of this wonderful agent are fully understood.

The writer was invited some time ago to the instrument-room at the central station of the Submarine Telegraph Company to witness an experiment of sending a

telegram over the longest distance of land and through the greatest extent of sea that was then possible—this was to the Island of Corfu, a distance of more than fifteen hundred miles.

A continuous wire was joined up from London to that island, but as the wire would be necessarily suspended from hundreds of poles, extending over such a great distance, and where perhaps at every connection a small amount of electric fluid would escape; and as, moreover, the wire never fully discharges itself, for a portion of electricity always lags on the way and eventually returns home again: the charge would not last out to reach its

destination without some additional assistance on the road. It therefore becomes necessary in such operations to refresh and invigorate the lightning, as in the old slow time a man would water his horses on the road, or as the Brighton "Age" would, in its then wonderful journeys, "change horses in half a minute."

To provide this assistance, instruments called *relays* were placed at distant intervals along the line, the object of which was to receive the nearly exhausted current of electricity, revive it instantaneously with additional strength, and send it on to the next relay, and so on till it arrived at its destination.

In order fully to realize this wonderful achievement, we will trace the progress of a message along the route from London to Corfu.

The transmitting instrument in connection with the battery generating the electricity is set in motion. A flash of electricity is liberated, and wings its way along an insulated wire, under the busy streets of London, and under the now quiet turnpike-roads to Dover, then under the surging waves through the submarine cable, peacefully lying at the bottom of the Channel, to Calais, where it mounts up to land again, traverses the intermediate country to Paris, picks up a relay of electricity charged from a local battery in waiting to revive its now languishing strength; and, reinvigorated, pursues its silent and instantaneous flight through cities and towns without stopping, but every now and then receiving assistance and new life, till it arrives at Turin; thence on to Genoa, from whence with increased power it dashes through the submarine cable, one hundred miles in length, to Corsica, rushes over this island in the quickness of a thought, descends again into the sea, across the straits of Bonifacio to Sardinia, up on land again, through villages, and over the Gallura Mountains, where the deadly malaria fever lurks, that killed so many men in its construction, to the easternmost point of this island; then again taking a header through another submarine cable lying at the bottom of the deepest part of the Mediterranean to Malta, over its rocky ridges to the other side, from whence it finally flashes through another submarine cable under the sea to its destination, Corfu; doing the whole distance of fifteen hundred miles in *two seconds and a half*, and passing over, in its

transit, some of the highest mountains in Europe, as well as five times descending more than a mile's depth into the ocean.

The estimated speed at which electricity travels is at the rate of two hundred and eighty-eight thousand miles in a second.

But the coming back of this mysterious agent is still more wonderful than its guided transit along the wire; for there it has an operator, philosopher, guide, and friend, to direct its course; but now it returns home again, not along a conductor supplied by man's ingenuity, but alone through the earth. "This world is all before it where to choose," for, after it has reached its destination and recorded its symbolic mission, it is transmitted down a wire, sunk in the earth for that purpose, to find its mysterious way back to the spot from whence it started, and passes up another wire similarly placed in the ground, again into the presence and power of the operator; for, until it has arrived at home, the electric circuit is not completed and no signal is given.

Wave after wave of electricity was transmitted, until the whole message of some twenty words had been communicated to the island of Corfu; the transit of the whole occupying six minutes; then a brief interval, and click, click, the serpentine length of paper unwinds itself, containing the reply, which came back in even less time than the message sent.

Fortunate was it for the science of telegraphy that this experiment was made just at that time, for it was fated not to be repeated over the same route again.

The cable between Sardinia and Malta, three hundred miles in length, broke soon after, either from the chafing upon a ridge of coral, or, not improbably from the action of a submarine volcano. From the same cause the Corfu soon followed the example of fragility, and, owing to the great depths of the Mediterranean, both cables have defied all efforts to repair them. They have now been abandoned, the Company deeming it expedient to change the route, and the communication is now kept up with Malta and Corfu by cables from Sicily.

Another wonderful instance of the marvelous facility of transmitting thoughts by the aid of the lightning has just been recorded. At a telegraph *soirée* given by Mr. Samuel Gurney, M.P., at his residence in Hyde Park, on the twenty-sixth

of March last, the Earl of Shaftesbury sent on a message to St. Peterburg, inquiring after the health of the Emperor of Russia, and in *four minutes* he received word from the banks of the Neva, a distance of two thousand miles, that he was in good health.

It was then proposed that the correspondence should proceed along a line making a tour of the whole of the Continent of Europe, and return through France to the starting-point in London.

St. Petersburg gave the signal that they had connected the wire from London which passed through Berlin on to Moscow. Moscow immediately did the same to Kiev, in Southern Russia. From here it extended through the vast tract of territory intervening to Temeswar, an important fortified town in Southern Hungary, near the frontier of Turkey; thence through Trieste, Venice, to Verona. From Verona it was telegraphed that the projected circuit of correspondence could not be completed, in consequence of an accident to the lines westward, between there and Turin.

But the telegraph lines as above described, extending from London to Verona, completed an unbroken circuit of upward of *five thousand miles*, through which messages passed as instantaneously as though the distance was only a few miles; relays of electricity being placed along the line at various intervals ready to be picked up as before mentioned.

This achievement is unparalleled in the annals of the science of telegraphy.

The wires of the Submarine Telegraph Company were extended for this occasion to Mr. Gurney's drawing-room, thereby placing an instantaneous communication to all the capitals of Europe at the disposal of the guests.

The great but short-lived success of the Atlantic cable, although disheartening for the time, is cheering to the projectors of a new line, from the certain and established fact that the causes of the last failure can be entirely guarded against for the future, and a final success predicted as a certainty.

In fact, so many improvements have been made both in the manufacture and mode of working submarine cables, that distance and speed of transmission appear to have now no limit, for to such perfection has the paying-out machinery been brought,

that perfect success is only a question of fine weather.

Since the Atlantic cable was laid, several long deep-sea telegraph lines have been safely submerged, and worked with great success, in the Mediterranean.

The danger attending these operations required much more engineering skill and attention than the paying out of a line would along the almost level plateau existing between Ireland and Newfoundland; because the bottom of the Mediterranean presents the same geographical formation as the Alps. At one time the cable is resting on the top of a submarine mountain, while at another it makes an almost perpendicular descent of more than a mile's depth to reach the bottom of the ocean; yet in spite of this difficulty no less than twenty-three hundred and forty miles of telegraphic cable have been successfully laid and worked during the last two years—namely, between France and Algiers, Toulon and Corsica, Corfu and Otranto, Malta and Alexandria.

This fact at once indisputably establishes the entire practicability of laying and successfully working the telegraph-cable between Great Britain and America.

The working of submarine cables has also undergone a complete change; instead of a large quantity of electricity being transmitted at one time to overcome the resistance of the wire, the wave now communicated is as small and as weak as possible, so as not to wear out the cable unnecessarily. The practice of the science has also demonstrated that positive currents of electricity, or those generated from the copper pole of the battery, are better adapted to the working of submarine cables than the use of the negative currents, or those from the zinc pole of the battery, or both alternately, which, it has been observed, will soon find out the weak and defective places, and destroy the cables at those particular parts.

It was this that, in a measure, accelerated the fatal pause in the Atlantic cable, as every current sent along it literally only made matters worse by increasing the injuries which the cable had received previous to its submersion.

One of the modes of discovering the whereabouts of an injury to a submarine cable is extremely simple; namely, by sending a current of electricity along the

wire, and then by observing, upon an instrument called a galvanometer, the amount of electricity which returns, as in every case when a current is sent along a wire, the full discharge of that quantity does not take place at the other end, but small particles of electric fluid linger along the wire, and return to the instrument which sent it. Therefore, if the injury is near at hand, the return current will be comparatively small, because the greater part will have escaped into the sea; but if the injury be several miles away, the return current will be increased, as more of the electricity will have lingered along the wire in its transit over a greater distance, and only a small quantity will have arrived at the fault, and passed away, and by a mathematical calculation based upon these results, the distance of the fault is determined.

The cable is then dragged for about the spot indicated until it is found, then hauled on board, repaired, spliced, and dropped into the sea again. This is an operation requiring great care, experience, and judgment. At a recent repairing operation in the case of the Belgian cable, which was broken by a ship's anchor a short time since, it was found that, although the large iron wires of the outer covering were broken, as well as the internal copper conductor, yet so tenacious was the gutta percha, that it resisted the enormous strain, allowing itself to be literally drawn out from the size of a piece of macaroni to a shred of vermicelli, thus adding another fact to those already established of its indestructibility under water, and its superiority over all other insulating materials for submarine cables.

After a cable has been submerged some time, it becomes incrustated frequently to the size of a man's body, with thousands of muscles, zoöphytes, marine algæ, and infusoriae. In the case of the cable laid along the Norwegian coast by the enterprising fishermen of that country, for the purpose of enabling them to telegraph from point to point the arrival of the herring shoals, the manager reports that a portion of it, being required to be taken up temporarily, was found to be incrustated to nearly the thickness of a man's body, with beautiful coral formations and other forms of carbonate of lime, and the lime-producing animals had made a nucleus of the external iron for the purpose of mooring themselves to the bottom and carry-

ing on their work. Thus protected, were it not for ship's anchors, it may remain undisturbed to the end of time, as in no instance has gutta percha been found to decay under water, which appears rather to improve than deteriorate its insulating properties.

The very first cable ever laid, which was from Dover to Calais in 1851, is as good and as perfect as on the day it was finished.

Of the five proposed telegraph routes to America, namely—from Ireland to Newfoundland; France to the Island of St. Pierre, and thence to Newfoundland; Spain to Madeira, the Azores, and the Brazils; the Faro Islands, Iceland, and Greenland to Newfoundland; and, lastly, the Russian overland route to unite the south of China with America—the first decidedly has the precedence over the others for various and obvious reasons, one of the number being that it would be under British control, both ends landing on English territory, and also that it has been *un fait accompli*.

That from France to St. Pierre has the next best chance of being carried out, as it is said the Emperor Napoleon is most anxious to have it done, and has offered a guarantee of seven per cent upon the capital, conditionally upon the cable continuing in working order.

Then comes the Spanish scheme, which, from the great distance to be traversed, will require such a large amount of capital, that the traffic must be very great to make it pay, even if the enormous capital required were ever subscribed. The Queen of Spain has, however, granted the projectors a guarantee, and has intimated her wish to become the first shareholder.

Next is the northern route *via* Iceland and Labrador, of which so much has been put forward lately by the parties interested, but which is the least likely of any of the routes to be successfully carried out, as the temperature and magnetic influences may prove an insurmountable obstacle to the successful working of electric instruments in those desolate regions, so frequently agitated by snow-storms and volcanoes, independently of the danger to the cables from the grounding of icebergs.

Lastly, there remains the proposed route through Russia and Asia, which at present appears thoroughly impracticable, not only from the great extent of land to be

traversed, but also from the depredations of turbulent tribes inhabiting those uncivilized regions.

The telegraph instrument now universally adopted is an improved arrangement of that invented by Professor Morse, and which records its telegrams in ciphers of long and short dashes upon a continuous slip of paper.

The old system of the vibrating-needle instruments patented by Professor Wheatstone and Mr. Cooke, is now very little used, as the constant watching of the vibration of the needles produces an injurious effect upon the eye of the operator. After laborious service, and especially after service at night, the retina is frequently so affected that for a considerable time all small objects appear double and shrouded in a haze.

Another system, invented by Sir Charles Bright, has been successfully adopted by the British and Irish Magnetic Telegraph Company, namely, that of telegraphing

by sound produced on two small bells, the *employés* deciphering the signals by listening with their ears instead of watching with their eyes.

It is reported that the Post-office authorities have proposed to the Government to buy up all the telegraph lines in England, and that the whole system should be transferred to them, and every post-office in town and country should become a telegraph office—a uniform rate and postal system being adopted. A similar plan was suggested to the Government of the late Sir Robert Peel in 1845, by Mr. J. W. Brett, who has done so much for telegraphy in introducing and establishing the invention of the submarine telegraph, and although hundreds of patents have been taken out for different kinds of cables, the original spiral form of twisted wires for the outer covering, originally adopted by Mr. Brett, still keeps its ground.

T. A. MASEY.

From the Dublin University Magazine.

W A K I N G V I S I O N S .

BY JONATHAN FREKE SLINGSBY.

"A dream, and fruitless vision."—*Shakespeare*.

Visions of beauty! dreams of my childhood!
Come back again in your witching array;
Sweet as the warblings of birds in the wild wood,
Fresh as the dew-beads in mornings of May.
Oh! let my spirit dreamily wander
Once again back to those far-away hours;
Love as I loved then, purer and fonder,
Heaven all sunshine and earth strewn with flowers.

Visions of glory! bright as the noon-day,
Come back again in your richness and truth;
Gorgeous and warm, as the sun of a June-day,
Wild, as the mountain-stream—Visions of youth!
Oh! let my spirit bathe in your splendor;
Life throbbing strongly through heart and through vein,
Love—a deep passion, holy and tender;
Pleasure—the life-wine my soul sought to drain.

Visions of greatness, knowledge, and power !
 Come back again as ye were in my prime ;
 Mellow in promise of fruit from the flower,
 Fame from the lay—Manhood's ripe autumn-time.
 Oh ! let my spirit cling in its longing
 Still to those visions that flattered and fled ;
 Let me re-people my heart with the thronging
 Of phantoms that cheated, of hopes that are dead.

Visions ! all visions ! How sad to remember
 Beauty and glory and greatness when gone—
 Spring, summer, autumn, all past—and December
 With snow-flake and cloud coming gloomily on !
 Echo of strings long untouched by the finger—
 Odor of life when its flowers decay,
 Memory—how fondly the soul loves to linger
 Through thy dim shadow-land wandering away.

Visions ! all visions ! the dreams of the sleeper.
 Man walks in shadows from cradle to tomb,
 In shadows that ever grow darker and deeper
 As his life-sun goes down to its setting in gloom.
 The Past all illusion—the Present flits from us ;
 It dies as we grasp it and turns into Past.
 The Future, all darkness, gives only one promise—
 When our journey is over, the grave-rest at last.

Oh ! let my spirit slumber no longer,
 Lapped in those visions delusive and sad.
 Awake ! let thy ken become clearer and stronger
 To pierce those life-shadows, my soul, and be glad.
 All is not darkness—from regions elysian
 Through the grave, as it opens, a light thou canst view.
 Evanish ye shadows ! dissolve every vision !
 For all things in heaven are real and true.

From the St. James's Magazine.

T H E G R O W T H O F L O N D O N .

LONDON is, in one respect, the most wonderful of cities. It seems to possess an unlimited power of expansion. Step by step, from year to year, its growth advances, as it enfolds new suburbs to its bosom. This process has been going on for ages, until the traveler of the present can scarcely realize the scenes of the past. As we move amid the throng of passengers, and listen to the undying hum of commerce, it is difficult to think of the Metropolis as comprised within the ancient city walls and gates of which the names alone re-

main. Still more difficult is it to conceive of a time when the Thames flowed silently through green banks and deep forests.

Our forefathers, even in barbarous ages, seem to have possessed in a remarkable degree the faculty of choosing suitable sites for cities. Though many proofs of this might be found, there is none clearer than their choice of a capital. It is mainly the excellent commercial situation of London which has brought it, in the course of time, to its present astonishing greatness and importance. As we muse on the

many advantages of its position, we can forgive the enthusiasm, if not the poetry, of Drayton, in the following lines from his *Polyolbion*:

"Oh! more than mortal man
Who did this town begin,
Whose knowledge found the place
So fit to set it in.
What god or heavenly power
Was harbored in thy breast?"

All attempts to fix the date of the foundation have failed. The monks and poets of the middle ages loved to ascribe it to Brutus, the fabulous Trojan hero. Sir Christopher Wren remarks that London must have been the chief seat of trade between the ancient Britons and the Gauls. The Romans did not subjugate it till the reign of Claudius; but Tacitus mentions it as of great note in the time of Nero.

The true meaning and derivation of the name are matters of much dispute. Sir Christopher Wren derived it from two British words, signifying "Ship hill," or "a harbor of ships;" Maitland, from two Gaelic words, "Lon," a plain, and "Dun," or "Don," a hill. Perhaps the most probable theory is that of Pennant, who traces the name to the Celtic terms "Llyn," a lake, and "Din," a town. No less pains have been taken to define the point at which the town commenced. It appears, on many accounts, likely that the first buildings were at or near Cheapside.

During the early days of the Roman occupation of Britain, London suffered much from war. It was burnt in the revolt of Queen Boadicea by the Romans, and plundered by the Picts in 297. There is, however, ample evidence that Roman London became a city of magnitude, and even magnificence. We are able to trace the boundaries pretty accurately. These would seem originally to have been the Thames on the south, and a line on the north a little beyond Guildhall. The burial-places, which with the Romans were always outside their cities, are proved by the funeral urns and other relics discovered, to have been in Spitalfields, Goodmanfields, Bishopsgate, and St. Paul's Churchyard. But the city outgrew these limits; for the wall built in the reign of Constantine the Great inclosed a much larger space. It ran from the Tower, by the Minories and Houndsditch, to Bishopsgate; then to Cripplegate along London Wall; thence to Aldersgate, whence, turn-

ing southward at an angle, it passed through Ludgate and behind Newgate to the Thames, which it skirted all the way back to the Tower. Many handsome villas must have existed at this period, as their ruins testify; and the numerous Roman remains from time to time found, in the shape of articles of artistic elegance and value, give us an idea of considerable wealth. The great Roman Highway, or main road, was Watling street, stretching from the ancient London Stone, which still exists, in Cannon street, to the Tower. It is worthy of remark, that the modern level of the city is about fifteen or twenty feet higher than that of those days; so that the footsteps of the citizens of the present are level with the first-floor windows of the Romans. A great deal of draining and embankment was needed, for the waters of the Thames then spread far and wide. Chelsea and Battersea were lakes, the West-End a marsh, and Finsbury a forest. A single bridge of wood spanned the river.

We catch but very few glimpses of London at the time of the Saxon invasion of England. It would seem to have escaped ruin from the invaders, and to have been occupied with but slight alteration. On the introduction of Christianity, through the preaching of Augustine, a church dedicated to St. Paul was erected on Ludgate Hill (where a temple to Diana had formerly stood) by Ethelbert, King of Kent. Soon after, Sebert, King of the East-Saxons, built one at Westminster—then a place of thickets and fens—which was said to be miraculously consecrated by St. Peter. The sites of these churches are now occupied by the noble Cathedral and venerable Abbey which are our city's architectural pride.

In the year 833, a Witenagemot was held in England. This was probably the first Parliamentary assembly within its walls—not an assembly of courtly nobles or educated commoners, but a gathering of bearded warriors, anxious to devise means for repelling the "Black Danes." Whatever were the measures agreed on for resistance to those terrible invaders, they did not succeed; for in 839 the city was sacked. And whenever the citizens of London appear in history during the next hundred years, it is as harassed by guerrilla incursions from the bands of Denmark. Fires, too, were frequent. Speede tells us, that: "In the year 982 the citie London was



miserably destroyed and defaced by fire; whose beautie then chiefly extended from Ludgate westward—for that within the walles, and where the heart of the citie now is, was then neither beautiful nor orderly built." However, damages of every sort were quickly repaired by the inhabitants with timber from the then extensive forests of Islington and Hornsey. On the amalgamation of the kingdoms of the heptarchy, London gradually assumed its position as the capital of all England. The first of the long line of coronations at Westminster was that of Edmund Ironside. Edward the Confessor rebuilt St. Peter's Church there, and erected a Palace adjoining it. Here he spent the last days of his life, and died in the room called the Painted Chamber, while his subjects were keeping the Christmas festival.

There is little to enable us to create for ourselves a picture of Saxon London. But, as Lambard assures us, "there want not innumerable testimonies of all the Saxon authors, that during all the tyme of their government it bare the bell." Bede calls it "a princely town of trade."

After the battle of Hastings, the Londoners at first resolved to fight for their independence of Norman rule. William the Conqueror hastened toward the city; but meeting on the way with some resistance, he changed his mind, and turned back to Berkhamstead, in Hertfordshire. There he took up his quarters in the old castle of the kings of Mercia—the ruins of which adorn that town to this day—and began to consider what he should do. He was spared the necessity of fighting. The clergy of London, with Stigand the primate at their head, declared for the Conqueror; and the city submitted. William was crowned at Westminster—not without a disturbance—and granted the following charter, consisting of four lines and a quarter in the Saxon character, on a slip of parchment six inches long:

"William the King greets William the Bishop and Godfrey the Portreeve, and all the burgesses in London, both French and English. And I declare that I grant you to be all lawworthy, as you were in the days of King Edward; and I grant that every child shall be his father's heir after his father's days; and I will not suffer any person to do wrong."

With the Norman Conquest seems to have commenced the architectural beauty of London. William I. erected the White

Tower, the nucleus of the present fortress. This is said to have been designed by Gundulph, Bishop of Rochester. Westminster Hall owes its origin to William Rufus. When, about the end of the century, St. Paul's Church was destroyed by fire, the splendid Gothic structure known as "Old St. Paul's" was reared in its stead. Many noble priories—as St. Bartholomew at Smithfield, and St. John of Jerusalem at Clerkenwell—graced the commencement of the twelfth century. The chapel of St. Stephen at Westminster, destined for many ages to accommodate the House of Commons, was built fifty years later. And in 1176, the wooden bridge over the river having become ruinous, there was commenced one of stone, under the direction of Peter of Colechurch. This was a great work for the age, and was not completed until 1209. The Temple Church adorned Fleet street ere the twelfth century ran out.

We get a tolerably clear view of London in the reign of Henry II. Small, indeed, it would have appeared to modern eyes. The population was estimated by Peter of Blois at forty thousand. Orchards flourished where Paternoster Row and Ivy Lane now stand. The youth of the city took summerstrolls to Clerkenwell, Holywell, and St. Clement's Well, of which the waters were greatly esteemed. Smithfield—then called Smoothfield, and described as in the suburb without the gate—was the horse-market, and not unfrequently the race-course. The forests on the north abounded with stags, wild bulls, boars, and fallow-deer. Yet Fitzstephen, a monk of Canterbury, who died in 1191, has left a glowing description of the wealth, power, and importance of the metropolis. There were, he tells us, thirteen conventual and one hundred and thirty-six parochial churches, and three public schools. The citizens were patterns of social elegance, of domestic virtue, and of respect for religion. Into the city flowed the gold and spices of the East, the furs of the North, and the wines of the South. "The only plagues," says he, "are the intemperate drinking of foolish people, and the frequent fires." The last of these evils was in some measure corrected by an ordinance of Richard I., in 1191, commanding that all houses should be built of stone. For the former "plague," modern science has not yet discovered, or at least applied, any adequate remedy.

It is not the purpose of the present article to enter into the history of London. We must therefore pass rapidly over the Plantagenet and Tudor reigns, nor be tempted to turn aside for even a passing glance at the many stirring events which took place within the walls. The march of the Crusaders from St. John's Gate at Clerkenwell, the rebellion of Wat Tyler, the preaching of the Reformers at Paul's Cross, the burning of the Marian martyrs in Smithfield, must not compel us to linger; but we may notice the improvements which were introduced during the thirteenth, fourteenth, and fifteenth centuries, and record what can be gathered as to the growth of the city.

In 1218, the forest of Middlesex was cleared, and the land sold for building. In 1221, the first stone of the present Westminster Abbey was laid by Henry III.

The great question of a supply of water engaged public attention in 1236. Hitherto various wells and springs had supplied the city; but these now began to fail and grow insufficient. A plan was therefore devised by which water was brought from the village of Tyburn in leaden pipes to conduits or cisterns erected in various streets; and this was found to answer satisfactorily.

Coal began to be used in the manufactures in the early part of the fourteenth century. At first it was much opposed by the citizens. The smoke was voted a dangerous nuisance, and an act passed in 1316 actually forbade the burning of coal. But its superiority as fuel, and the growing scarcity of wood, secured its ultimate adoption—more especially as levying taxes on it was soon found to be a fruitful source of revenue.

London over the water may be said to have first fairly commenced in the reign of Edward III. For some time felons had been in the habit of escaping over London Bridge into the village of Southwark, and thus defying and evading the law of the metropolis. Edward therefore annexed the village to London, and brought it under civic rule. As early, however, as 1191, Lambeth Palace had been erected.

We get a quaint and distinct picture of London life and trade at the close of the fourteenth, or opening of the fifteenth century, in *London Lackpenny*, a poem by Lydgate. It describes a poor countryman as coming up to London to prosecute a law-

suit, being confounded by the clamor everywhere around him, and finding that he could obtain nothing for want of money. The poem is far too lengthy to quote entire, but a few lines describing some of the chief resorts of trade will be interesting. The countryman, after failing to enlist the sympathies of the lawyers of Westminster Hall without fee, and being moreover tantalized with the offer of all kinds of luxuries in exchange for the cash he lacked, tells us:

"Then unto London I did me hie,
Of all the land it beareth the prize.
'Hot peascods!' one began to cry,
'Strawberries ripe!' and 'Cherries in the
rise!'"

And bad me come near, and buy some spice.
Pepper and saffron they gan me bede,[†]
But for lack of money I might not speed.
Then to the Chepe I began me draw,
Where much people I saw for to stand;
One offered me velvet, silk, and lawn,
Another he taketh me by the hand:
'Here is Paris thread, the finest in the land.'
Then full I went by London Stone,
Throughout all Canwyke street;
Drapers much cloth offered me anon,
Then comes me one cried 'Hot sheep's-feet.'
One cried 'mackerel,' 'ryster green,' another gan greet.
Then I hied me unto Eastchepe;
One cries ribs of beef, and many a pie;
Pewter-pots they clattered on a heap;
There was harp, pipe, and minstrelsy."

The poem closes with the following benediction for the "limbs of the law:"

"Now Jesu, that in Bethlehem was born,
Save London, and send all true lawyers their
need—
For whoso lacks money with them shall not
speed."

During the mayoralty of Sir Henry Barton, in 1416, an attempt was for the first time made to light the streets of London at night. The inhabitants were ordered to hang out lanterns before their doors in the winter evenings between Allhallows and Candlemas; and a watchman was nightly heard to cry in the streets: "Hang out your lights!" Feeble as was the glimmer of these, they must have been a great comfort to the dwellers in "lovely London," as the city is called about this time in the ballad of Chevy Chase. Soon after, Leadenhall was

* Branch.

† Began to offer me.

erected as a public granary for storing corn against a time of dearth; and Newgate was rebuilt by the executors of the famous Dick Whittington, thrice Lord Mayor. The portion of London within the walls now became closely crowded. The palaces of the nobility and the merchant-princes adorned it. The torrent of trade and population began to overflow. But the houses were still largely built of wood and clay, with one story jutting out over the other until the top of the street was but a narrow chink to let in light. The furniture, even of mansions, was rude; the floors strewn with rushes seldom renewed; the supply both of water and air deficient. Holinshed describes London, in the early part of the sixteenth century, as presenting but "a mean appearance in comparison with foreign cities."

Greatly had London increased in size when Elizabeth ascended the throne; and it continued to grow so rapidly during her reign that its extension was forbidden. Yet, when we turn to the map drawn by Aggas, in 1560, we are forced to smile at what our forefathers considered the wondrous stretch of the city. "Finsburie Field" was a field indeed, and a place of practice for archers, though it was getting dotted here and there with houses, much to the annoyance of the said archers. There were three windmills, too, on the open ground hard by. Spitalfields were equally verdant; Goodmanfields still more so. Clerkenwell was not yet annexed. The Strand was a kind of lane from London to Westminster, ornamented on the south side with noblemen's mansions running down to the water's edge. All west of Charing Cross was open country, Spring Gardens having a bowling-green and several favorite promenades. There were a few scattered buildings on the north side of Holborn, along the road to St. Giles-in-the-Fields. St. Pancras, Kentish Town, Islington, and Tottenham Court, were villages only to be reached by a rural and somewhat dangerous walk. On the Surrey side of the river there were not ten buildings between Lambeth and where the west foot of Blackfriars Bridge now stands. From thence to the Borough there was a row of houses, and a few more were scattered between Tooley street and Horsleydown. On the accession of James I. the whole population of London was calculated at one hundred and fifty thousand.

When the civil war broke out between Charles I. and the Parliament, an assault from the army of Prince Rupert was feared, and fortifications were erected around the city in consequence. The position of the entrance to these gives us an idea of the dimensions London had then attained. The first entrance was near the windmill, Whitechapel Road; the second at Shoreditch; the third in St. John Street; the fourth at Tyburn, St. Giles's Fields; the fifth at Hyde Park Corner.

The assault came not; but London was ere long to pass through a more terrible ordeal—a baptism of fire! In 1666 the Great Fire laid the main portion of the Metropolis in ashes. Four hundred and thirty-six acres were covered with the ruins. From Temple Bar to Bishopsgate, and from Holborn to London Bridge, masses of flaming or charred timber, mingled with calcined stones and melted metal, were all that remained of the proud and mighty town. Four hundred streets, thirteen thousand houses, eighty-seven parish churches, and six chapels, the grand old cathedral of St. Paul, and the whole of the public buildings, were withered from the face of the earth. Seven million pounds' worth of property was utterly destroyed.

Fearful as was this devastation, the city rose again with marvelous rapidity. It must ever be a source of regret that the plans of such men as Wren, Evelyn, and others, for its reconstruction, were not carried out. The attachment of the people to the sites of their former dwellings prevented this. They insisted on rebuilding their own houses after their own fashion. It is probable, however, that the event tended to widen rather than contract the boundaries of the city; and it was certainly most beneficially effectual in clearing away the narrow streets and cumbrous wooden buildings, which had now to be replaced by structures of brick.

London may be supposed to have in some degree recovered from the Great Fire by 1690. The population was then half a million, and houses were estimated at eighty-seven thousand. The buildings within the walls had nearly risen from their ruins, and Spitalfields had become covered with dwellings. The modern West End, too, was beginning to appear, for St. James's Square and Church were just built, and a chain of houses linked

them to Temple Bar. Burlington House had also been reared. But all northward and westward of this was open land, with ponds for fishers and covers for sportsmen. Conduit Street was a meadow with a celebrated water-spring; and Oxford Street (then called the Oxford Road) ran between hedges. Chelsea was still a quiet country village, and so was Islington. The nobility and the *élite* of the mercantile community lived yet in the city, in those palaces many of which are now standing to testify of its by-gone architectural grandeur.

As the eighteenth century commenced, London still progressed to the north and west. The revocation of the Edict of Nantes had driven many French Protestant refugees to England, who settled in St. Giles's and Spitalfields. The district called Seven Dials sprang up. Bedford Row, Red Lion Square, and the whole district north of Holborn, were added to the swiftly-growing city. Bloomsbury Square, (then called Southampton Square,) Soho Square, (then called King's Square,) and Golden Square, followed suit. Soon Shoreditch, Clerkenwell, and the hitherto solitary Islington, began to be drawn in. From Bond Street to Marylebone houses were rearing in 1717; Rathbone Place was built in 1718; and in 1726 was completed the church of St. Martin-in-the-Fields. Berkeley Square arose in the far west, while in the east the parish of Wapping was formed. The Fleet Ditch was covered over, and Fleet Market built therein. Paddington was joined with Islington by the New Road. Grosvenor Square also belongs to this period.

By 1750 the West End was a compact mass of houses. The boundaries of London on the north side of the river were then somewhat as follows: Starting eastward, from Portland Square, crossing Tottenham Court Road, we pass Bloomsbury and travel on through Clerkenwell, Finsbury Square, Spitalfields, and Whitechapel, to Wapping. We quote the following description of the north-west portion of the Metropolis about 1766 from a recent publication:

"Great Portland Street, Marylebone, was then almost in the country. An irregular lane between fields and hedges led from Portland Chapel to the New Road, where was a turnstile. . . . Cavendish Square was then on the very outskirts of the town. There was a very large farm where Osnaburgh Street now

begins, and eight or ten large hayricks used to stand there in a row. At that time the church of St. Giles-in-the-Fields had only recently been surrounded by buildings, and six small almshouses stood in the very middle of High Street. North-west of Russell Square was a large farm, occupied by two very eccentric old maiden sisters named Capper. A few straggling houses flanked the northern part of Tottenham Court Road, Hanway Street was a place for fashionable shops, and Rathbone Place was tenanted by people of wealth and station. Whitefield's Chapel had been built in 1754, on the site of a large pond, which was called the Little Sea. Windmill Street, just beyond it, was recommended for lodgings to invalids by physicians for the sake of its pure country air. Northward, there was an open extent of fields, with numerous turnstiles; and the pipes of the New River Company were carried on long props, six or eight feet high, beneath which watercresses used to grow abundantly."

While London outgrew so mightily, internal improvements were not suspended. The shops, which had for ages been open and unglazed, began, about 1710, to be enriched with plate-glass windows. The "Tatler" tell us of "private shops that stand upon Corinthian pillars, and whole rows of tin-pots showing themselves through a sash window." And in 1762 was passed a paving act, than which none was ever more needful. For centuries, the filthy and undrained streets had been an eye-sore to foreigners, as well as a fruitful source of accident and discomfort; while only a few favored spots could boast of pavement. Now, at length, steps were taken to remedy this evil. Another almost equally great was cured, by the removal of the old signs which hung over the shops, and of many other obstructions to the thoroughfares. The system of numbering the houses was commenced in 1764.

During all the preceding centuries, but a single bridge had girded the Thames. The traffic across London Bridge now became so great, and its distance from the West End so inconvenient, that in 1738 a Parliamentary grant for a new bridge was obtained, and Westminster Bridge was completed in 1754. Blackfriars followed in 1770.

Onward, and still onward, to the north, London advanced. The latter part of the century saw Bedford, Russell, and Brunswick Squares laid out, and the parishes of St. Pancras and Marylebone formed. Somers Town was commenced in 1786. Lord Camden, in 1790, let land

on his estate, near Kentish Town, for building fourteen hundred houses, and thus commenced the modern Camden Town.

Public attention in the opening years of the present century was directed to one of London's most pressing wants—that of suitable docks for her maritime trade. The Greenland (now called the Commercial) Docks, made in the seventeenth century, on the Surrey side of the river, were the only ones she could boast. So speedily, however, was this defect remedied, that, within a very short space of each other, the West-India, the London, and the East-India Docks were opened. The last of these were completed in 1806. Since then the St. Katherine's and Victoria Docks have been added.

But there was yet to be revealed to the metropolis a still greater benefit. Hitherto, during the winter nights, the city had been lighted only by occasional oil lamps, which served for scarcely more than to make darkness visible. In 1807, Mr. Winsor, a German, lighted one side of Pall Mall with gas. The idea was, of course, jeered at as chimerical, and, for want of means of purifying the gas, seemed at first of doubtful feasibility. However, in 1810, an act of incorporation, and in 1812 a charter, were obtained for a gas company. In the following year, Mr. Samuel Clegg devised many very useful improvements. Ere long it was confessed that the great triumph of turning night into day had been fairly achieved. The metropolis now nightly shines, as Lord Macaulay observes, with a splendor to which the illuminations for La Hogue and Blenheim would have looked pale.

From the accession of George IV. to the Regency, London has advanced, both in size and beauty, beyond all precedent. Whole districts, large as cities, have arisen as by the wand of the enchanter. Belgrave and Pimlico on the south of Hyde Park; Tyburnia on the north; the noble sweep of Regent street, the Regent's Park, with its splendid terraces, Trafalgar Square, Portland Place, and the chief buildings

which beautify Pall Mall, are the growth of the last forty years. Waterloo, Hungerford, Vauxhall, and Southwark Bridges have spanned the Thames; and that marvel of engineering skill, the Thames Tunnel, has afforded a passage beneath its waters. The monuments of Nelson and the Duke of York, with statues innumerable, of various merit, relieve the monotony of a succession of dwelling-houses. The introduction of railways has afforded the means of pouring into the bosom of London the produce and manufactures of every part of the land; while steamships and electric telegraphs connect it with the whole habitable globe. And still the mighty hive of industry spreads, till it seems ready to engulf the heights of Hampstead and Highgate on the north, and the Surrey Hills to the southward.

The census returns just published show that there are at present, in London and its suburbs, within the limits of the Metropolis Local Management Act, 362,890 inhabited houses. The area covered by these may be roughly estimated at 80,000 acres. The population is 2,803,034. Thus, there are now just four times the number of houses, and nearly six times the population, of 1690.

Our task is now ended. We have traced London from the cluster of mud-huts reared by the Celtic savages to the splendid position of the largest city, and the capital of the foremost nation, in the world.

The growth of London is a grand spectacle. It represents to us the toil and the talent of by-gone generations who slumber in its crowded church-yards, or beneath its many steeples. It is a type of that marvelous British colonization which is expanding over the whole world. May it prove also a type of the progress of those principles of sound political wisdom which have made England great, glorious, and free! And may it image the spread of that civil and religious liberty which England so happily enjoys!

From the Dublin University Magazine.

GREAT SCHOLARS AND GREAT EATERS.

"How empty learning, and how vain is art,
But as it mends the life, and guides the heart."—YOUNG.

Does very extensive erudition, with all its multiplied lights, necessarily render the few exceptional possessors more happy or amiable than the comparatively ignorant many, whose endowments are circumscribed by the rays of a farthing candle? Perhaps not. And does not learning too often engender arrogance and pride? The habitual bitterness of polemical discussion, whether scholastic, political, or theological, answers the question in the affirmative. Eminent examples also present themselves readily, backed by the arguments of philosophers of acute instinct in the estimate of man's faculties and their application. We speak not here of poverty, so often quoted as the domestic skeleton of literature. We pass over Otway's crust, Nat. Lee's strait-waistcoat, Lydiat's single shirt in three months, and Chatterton's vial of poison. We do not pause to "mark" with Dr. Johnson,

"What ill the scholar's life assail,
Toil, envy, want, the patron, and the jail."

We confine our thoughts to the moral effect of inordinate learning on the mind and feelings of the voracious recipient.

The wise king of Israel, the first of all authorities on the subject, writing twenty-eight hundred and sixty years ago, records his opinion thus: "And further, by these, my son, be admonished: of making many books there is no end; and much study is a weariness of the flesh." Lord Bacon tells us, that Socrates, Aristotle, and Galen were full of ostentation; and that Cicero, Seneca, and Pliny the younger, abounded in vanity. Cicero bears record against himself—"Quid nostri philosophi? Nonne in his libris ipsis, quos scribunt de contemnenda gloria, sua nomina inscribunt."—What do our philosophers do? Do they not, in those very

books which they write on despising glory, set their names in the title-page?

Again, Bacon says: "Too much learning breedeth self-love, and inflateth the owner. Wisdom for a man's self is, in many branches thereof, a depraved thing. It is the wisdom of rats that will be sure to leave a house somewhat before it fall; it is the wisdom of the fox, that thrusts out the badger who digged and made room for him; it is the wisdom of crocodiles, that shed tears when they would devour." And again: "To spend too much time in studies is sloth; to use them too much for ornament is affectation; to make judgment wholly by their rules is the caprice of a scholar." Of what use to the world to which he belonged without mixing with it was the vast congeries of learning, piled up in the cerebral cells of Magliabechi, who passed the greater part of a life protracted to eighty years, in a wooden cradle, fixed in the middle of his study, surrounded by dirt, cobwebs well tenanted with spiders, and fusty manuscripts piled round him to such a height that he could scarcely be seen; and which sometimes, for the sake of variety, he made his couch of repose?

Joseph Justus Scaliger, born at Agen, in Guienne, A.D. 1540, was perhaps one of the profoundest scholars that ever lived. But he was presuming, self-sufficient, and censorious, with scarcely a civil word for any one, and with but rare and transient glimpses of good temper. His constitutional vanity and insolence he appears to have inherited from his scarcely less celebrated father, Julius Cæsar Scaliger, generally designated as the elder. This respectable paterfamilias being asked by a friend what he would like to have said of him in a forthcoming work, replied: "Endeavor to collect your best ideas of what Masinissa, Xenophon, and Plato were, and



your portrait will have some, although an imperfect resemblance, of me." The answer is extant in the printed collection of the elder Scaliger's letters, or it could scarcely be received as credible. Joseph Scaliger, the younger, was master of thirteen languages, but his heart was far inferior to his head. Some have called him, "the honor and miracle of his age—a second Varro;" others, "the master of all, the support, Apollo, and Æsculapius of the Muses;" "the dictator of the republic of letters, the divinity, and the incomparable man of science." Lipsius and the Bishop of Avranches agreed in saying, that "if the Scaligers, father and son, were not princes, they deserved sovereign rank from the brightness of their genius and the marvelous extent of their knowledge." The two boasted of descent from the family of the Escali, long princes of Verona; but this was considered an empty flourish.

The following distich was written for Joseph Scaliger, but the author's name has not been preserved:

"Nec tibi secla parem, Scalane, priora tulerunt,
Nec tibi secla parem posteriora ferunt."

Notwithstanding the superlative praise so freely bestowed on himself, no one ever dealt more severely and indiscriminately in sweeping censure of his brethren of the quill, whether antecedent or cotemporaneous. Origen, he plainly calls a dreamer; Justin Martyr, a simpleton; St. Jerome, an ignoramus; St. Chrysostom, a proud rascal; Rufinus, a base villain; St. Basil, a pompous assumer; Epiphanius, an illiterate dunce; and Thomas Aquinas, a formal pedant.

Hard words, and a goodly assemblage of vituperative epithets, resembling the style in favor with modern ecclesiastical controversialists. Neither was this human porcupine less measured in his sentences on the literati of his own day. Because he surpassed them in certain points, he denied them merit in others, and undervalued their reputation in all. Jacques Cappel he denounces as a ridiculous fool; Sir Henry Saville, Queen Elizabeth's Greek tutor, he calls a haughty ass; Clavius, he stigmatizes as a beast; Cornelius Bertram, the renowned Hebrew Professor at Geneva and Lausanne, he writes down as a conceited fellow; Maldonat, as a mere plagiarist of Calvin and Beza; Aldus Manutius, the grandfather of the three gener-

ations who invented and immortalized the Aldine, or Italian type of printing, he undervalues as a weak mind; Silvandus Lubertus is with him a mere rustic; Cœlius Curio, a wretched pretender; Jerome Mercurialis, a great beast; Paul Merula, a contemptible impostor; and Walther, a poor animal. Cardinal Penori is treated by Scaliger as an ambitious boaster; Eri-cius Puternus and Wouveras relators of idle tales; Robertel and Meursius, as shallow pedants; Mellius he calls an ape, and Hoffman a plagiarist; Lindenbeuch he condemns as a coxcomb; Christmanus, as an empty sciolist; Victorius, as a mere copier of others, without judgment; Lipsius, one of his own warmest panegyrists, he rewards by abuse, including in the same pile Cardan and Montanus. The list is as interminable as the line of Banquo's shadowy descendants, but we must close it here. The Lutherans, as a body, are called barbarians; and all the Jesuits asses. Scaliger himself, it must be remembered, professed Calvinism.

To balance the account, we search in vain for a *per contra* page of eulogy, but no such variation is to be found. That this man was unamiable is certain. Could he have been happy? Who shall say, Yes? Does he not more palpably invert the popular apophthegm, "A little learning is a dangerous thing"? How he escaped without broken bones from the legion of the *genus irritabile* on whom he had poured such torrents of abuse, is scarcely less than a miracle.

The English have always been considered by Continentals as having a very barbarous pronunciation of Latin. No foreigner can follow us. This is not a vice of modern date. Scaliger says, in his three hundred and fifty-second Epistle: "Even the best linguists in England speak Latin so wretchedly, that I remember being in company with an Englishman of that description, a scholar, as he thought and called himself, who talked what he meant for Latin to me for a complete quarter of an hour, and whom I understood no more than if he had jabbered in Turkish. 'Sir,' said I, 'you must excuse me, but I am very indifferently acquainted with English.' On this, my friend who had introduced me burst out into a loud fit of laughter, which so confounded the stranger and myself, that we never met afterward without mutual embarrassment. I did not mean to make my affront so palpable, al-

though the monster deserved a severer rebuke."

Professed criticism is a branch of letters which excites more virulent and spiteful sensations than any other. Perhaps not so much from the natural disposition of the critics, as from a conviction, soon arrived at, that censure is more rabidly swallowed than praise. It is also incalculably easier. Aristarchus and Zoilus amongst the ancients, Freron, Geoffroy, and Dennis with the moderns, are usually quoted as types of acrimonious invective when wielding the censorial tomahawk. But they, and all of their class, must yield the palm to Gaspar Scioppius, born in the Palatinate in 1576, and whose systematic spite obtained for him the title of the "grammatical cur." At sixteen he published some critical severities which made his name at once remarkable. Educated as a Protestant, he abjured the reformed faith, and became a Romanist in 1599, at twenty-three. But, both before and after his conversion, he vented himself in furious and anonymous assaults upon the Jesuits. Neither did he spare his former brethren. Joseph Scaliger he particularly distinguished by his diatribes, forming (saith Guilandin) a noted exception to the band of flatterers by whom that equally bitter disputant was so profusely glorified. His treatises against our British Solomon, James I., nearly cost him his life. He was waylaid, desperately wounded, and almost slain, by the servants of Sir Henry Wootton, the English ambassador, in 1614. He even attacked the person and reputation of Henry Quatre, in a pamphlet entitled *Ecclesiasticus*, which was burnt in Paris by the hands of the common executioner. Hated by all men, and trembling lest his life might fall a sacrifice to some one of the many hundreds he had vilified, he fled from place to place, and finally found an asylum in Padua, where he continued to linger out what must have been a miserable existence, to the ripe age of seventy-four. His memory, otherwise entitled to respect for his acquisitions, is justly abhorred for his frantic attacks upon all the most eminent men of his age.

Jerome Cardan furnishes another instance of the futility of excessive learning as regards the power of man to know himself, to regulate his evil propensities, or to increase the general sum of earthly happiness. His self-conceit at least equaled that

of the Scaligers. In his personal memoirs, or rather *Confessions*, in which he anticipated Rousseau, with more sincerity, perhaps, and with equal inconsistency, he tells such strange tales of himself, that it seems almost impossible for nature to have formed an amalgam so capriciously put together and ill-sorted. In religious notions he appears to have been compounded of superstition, deism, and paganism. He congratulates himself on not having a friend in the world; but says, that to fill up the void, he has an "attendant spirit," or genius, partly emanated from Saturn and partly from Mercury, who waited on him as the constant guide of his actions and teacher of his duties, and came whenever he was summoned. This gift of spirit-rapping must have been an heirloom in the family, for Cardan also tells us that his father once summoned up seven devils together, who all presented themselves in Greek costume, about forty years of age, some ruddy of complexion and others pale. After much cross-questioning, to which they made ready answers, he selected one, and bound him to his service for twenty-eight years. We are not informed as to whether he tied him to his dog's collar, as Cornelius Agrippa did, or to the pomel of his sword, after the example of Paracelsus.

Cardan junior professed also a profound belief in judicial astrology, which he carried to such an extent that, according to current tradition, he starved himself at Rome, in the seventy-fifth year of his age, that his horoscope, which he had drawn himself, might not be falsified. He was the offspring of illegitimate love. When born, his head was thickly covered with black, curling hair. Never was any person more remarkable for inequality of temperament than this very singular man, so singularly added to the living aggregate of humanity. His life was a series of odd adventures, which he committed to writing with so much freedom and simplicity, that it seems as if he had composed the history for no other purpose than to exhibit to the world an amazing instance that a person might be endowed with a gigantic genius, and yet be without a modicum of sense. He expatiates with equal candor on his good and bad qualities, and professes to be as proud of his evil propensities as of his virtuous inclinations—if, as appears doubtful, he had any glimmering visitations of the latter. He owns, with-

out scruple, that he was revengeful, envious, treacherous, a dealer in the black-art, a backbiter, a calumniator, and unreservedly addicted to all the foul and detestable excesses that can be imagined; yet, notwithstanding, as it might be thought, such a humiliating declaration, there was never, perhaps, an individual on better terms with himself. He writes thus:

"I have been admired and enthusiastically followed, not by single persons, but by nations; an almost infinite number of panegyrics, in prose and verse, have been composed to celebrate my fame. I was born to release the world from the manifold errors under which it has groaned for ages. What I have found out could not be discovered either by my predecessors or my cotemporaries; and that is the reason why those authors who write any thing worthy of being remembered, blush not to own that they are indebted to me for it. I have composed a book on the dialectic art, in which there is neither a superfluous letter nor one deficient. I finished it in seven days, which seems a prodigy. Yet, where is there a person to be found, who can boast of his having become master of this doctrine in a year? And he that shall comprehend it in that time, must appear to have been instructed by a familiar demon."

This is blowing his own trumpet with a vengeance. The well-filled storehouse of self-laudation can scarcely parallel such a blast.

Cardan's eccentricities might have set him down as a madman or a mountebank, but he was highly distinguished as a physician, a mathematician, a linguist, and a logician. In the two first branches of science he held professorships at Milan, Pavia, and Bologna; and all four require the exercise of vigorous and unclouded intellect. Even his great opponent, the elder Scaliger, who replied with constitutional spleen to Cardan's deistical treatise, *De Subtilitate*, admits that the author possessed a comprehensive, penetrating, and original mind. Yet was his credulity in trifling matters almost childish. He swallowed eagerly all the false fancies of the Cabalists, Rosicrucians, and Astrologers, but called in question the sacred doctrines of revelation. It might have been said of him, bating that he was not clerical, as Charles II. pronounced of Isaac Vossius, of Leyden, one of his canons of Windsor, who was skeptical on religious points, but easy of persuasion on all

others: "Vossius is a strange fellow for a parson; he believes every thing except his Bible."

Cardan records of himself that his manner of walking the streets was so singular that observers pointed at him as a fool. Sometimes he assumed a funeral pace, as if absorbed in grief or meditation. He would then suddenly break into a trot, accompanied by extravagant gesticulations. In Bologna, his delight was to be drawn about in a strangely contrived vehicle with three wheels. When nature did not visit his body with pain, he would inflict suffering on himself, by biting his lips and pulling his fingers violently, until he forced tears from his eyes. His argument was that he thus moderated certain impetuous sallies of the mind, more insupportable than physical torture, and that this severe practice increased his enjoyment of health. Again, he says, that in his greatest paroxysms of mental anguish, he used to whip his legs with rods and bite his left arm; that it was a great relief to him to groan and weep, effects which sometimes no personal infliction could produce; that nothing gave him more intense pleasure than to talk of things that annoyed the whole company; that he spoke on all subjects as they came uppermost, without reference to fitness of time, place, or hearers; and that he was so addicted to games of chance, as to spend whole days and nights in them, to the great prejudice of his means and reputation, for he even staked his furniture and his wife's jewels. His wife was a mere nominal appendage, for they never met or associated together.

Cardan's pen was seldom quiescent. His works extend to ten folios, printed collectively in 1663. Notwithstanding the notoriety of his religious freedom, Pope Gregory XIII. made him his body-physician, and gave him a pension, which he enjoyed for seven years, until his death, in 1576. Of what use either to himself or to posterity was his *Rudis indigestaque moles*—his chaos of undigested learning? Not more than the equally unprofitable labors of William Prynne, which even exceeded those of Cardan in bulk, and are quite as unreadable. Cardan adopted as a motto, and inscribed over the door of his library—"Tempus ager meus"—time is my estate. Joseph Scaliger was wont to say: "My whole estate lies under my hat." The learned Sculter amplified the

notions of Cardan in these lines, which he also affixed to the portal of his study :

" Amice, quisquis huc venis,
Aut agitur paucis, aut abi,
Aut me laborantem, adjuva."

Which may be paraphrased in English as follows :

" One of three things I request,
If, friend, my studies you molest :
Be brief in what you say,
Or take yourself away,
Or aid me, if you stay."

The ponderous tones of the Scaligers, of Scioppius, and Cardan, stand in imposing file on the shelves of the Vatican, the Bodleian, and a few collegiate libraries, whence they are seldom disturbed since the days of old Burton, except by some mole of a book-worm who delights to grub in dark places. They are voluminous rather than luminous, as Sheridan amended his reported compliment to Gibbon, introduced in the celebrated Begum speech. They wrote in Latin, and affected obscurity in style and thought—a strange bias, but one which has its admirers, predecessors, and followers. A simple reasoner would say, knowledge ceases to be useful when it becomes unintelligible; but he is at once knocked down with a contradiction; as Thwackum, in controversy with Square, saddled his opponent with a judgment, whenever he advanced a suspicious theory. We have heard more than one say: "I like a book I can not understand." Talleyrand obtained credit for originality when he merely revived the dictum of an ancient: "Language was given to man to conceal his thoughts." We, on the contrary, are of opinion with the old Roman who says: "*Erit ergo etiam obscurior, quo quisque deterior.*" There can be no greater error than obscurity, since the object with which we speak or write is to make ourselves understood. Yet we are told that in the time of Livy there was a rhetorician in Rome who so advocated obscurity that he made his scholars cancel those passages in his works which were easy of interpretation. The praise he desired for the eloquence of his school was that men should say—"I do not comprehend the smallest portion of it."

Lycophron, one of the seven Greek poets called the Pleiades, who flourished

in the reign of Ptolomy Philadelphus, lived A.D. 220, was surnamed *Tenebrosus*, from the darkness of his only extant work, a poem called *The Prophecies of Cassandra*. He announced publicly that he would hang himself if he found a person who could understand it. He succeeded to his utmost wishes, and escaped the self-denounced penalty of the rope. This production proved the stumbling-block of grammarians, scholiasts, and commentators for ages, and is at this day as inexplicable as when it first appeared. Jacob Boehmen declared that the mysteries of his *Aurora*, published in 1612, are intended to be and will remain incomprehensible to all common mortals who are not gifted with special inspiration.

The following anecdote supplies an apposite illustration that in the business of life plain words are preferable to obscure ones. A pedantic old gentleman, odd and peculiar in his habits, happened to want a footman, and requested his nephew to find him one. The nephew thought his own valet eligible for the place, and desired him to apply for it. The man was attached to his young master, and left him reluctantly; but believing that the change would be for his advantage, repaired to the uncle, who being confident that his nephew would not recommend an improper person, merely asked him if he understood *sequences*. John was puzzled. He had never heard the word before, and it did not sound like any thing belonging to table service, brushing clothes, or cleaning boots. He was as much abroad as the sailor in *Black-eyed Susan*, who, having deposed on William's court-martial to his messmate's excellence as a seaman, is next asked what he can say of his *moral* character. "Moral character, your honor? Why, he plays the fiddle like an angel!" John, after similar hesitation, replied: "I am not quite sure, sir, that I understand you; but if you will be pleased to explain yourself, I hope I shall be able to give you satisfaction." "I mean," said his proposed new master, "that when I order you to lay the cloth, you should comprehend thereby every thing connected with it, such as the knives, forks, salt, spoons, etc.; and so upon all occasions, not to do only what you are told in so many specific words, but to let your mind take in the whole range of *connecting appurtenances, dependencies, sequences, and consequences* of one thing upon another."

John assured him that he would do his best, and had no doubt of pleasing him. Accordingly he was hired, and for some time they agreed perfectly. At last, his master finding himself one morning suddenly ill, ordered John to fetch a nurse as soon as possible. Instead of returning with all speed, he was absent for several hours, and when at last he presented himself, received a severe reprimand for his delay, when he had been sent on business that required dispatch. John waited until his master's anger had abated a little, and then proceeded to justify his conduct in the following manner: "That he went and found the nurse, who was below; thinking an apothecary might be a *connecting appurtenance* to a nurse, he had brought one, who was also below; that knowing a doctor was usually a *dependence* on an apothecary, he had likewise fetched a physician, who was in waiting; a surgeon, he said, was often a *sequence* to a doctor, and an undertaker the *consequence* of all; he had, therefore, brought them altogether, and hoped he had thoroughly understood and executed his orders." The story winds up by saying that the old gentleman was so much pleased with the humor of his man, that he added a codicil to his will by which he left him handsome legacy.

II. GREAT EATERS.

"Some men are born to feast, and not to fight,
Whose sluggish minds, e'en in fair honor's field,
Still on their dinner turn."—JOANNA BAILLIE.

From the mind to the body, "*facilis descensus Averni*," the gulf is wide and deteriorating, from the highest of intellectual adornments to the most groveling of physical propensities. But one extreme naturally suggests another, and thus the most opposite ideas mingle in association.

The heroes of the Trojan war had prodigious appetites. We find their table-feats more than once commemorated in the Iliad. Those were days of thrift, not waste; and it is not to be supposed that much more was laid on the table than the guests were expected to eat. When we are told that after the duel of the son of Telamon with Hector, and when dinner came on,

"The king himself,* an honorary sign,
Before great Ajax placed the mighty chine"—

it was clearly intended that the champion should appropriate the entire dish to himself. Several centuries later, Milo of Crotona, who flourished five hundred years before the Christian era, killed a bullock of four years old with one blow of his fist, and ate up the entire animal in a single day. Aglais, a dancer, (daughter of Megacles,) would devour, for her supper, ten pounds of meat, with twelve loaves, and drink several quarts of wine. (See *Cœl. Rhod.* l. 15, c. 19.) We have no record as to whether she exercised her vocation soon after this inordinate meal. Clio, not the muse of history, but a Grecian woman of the middle class, coeval with Aglais, challenged all the men to eat and drink, and never met her match. The family of the Apicii were as celebrated in old Rome for their gluttony, as the Decii, Fabii, and Scipios for their patriotic devotion. There were three of the name, but Apicius Cælius No. 2 was the most famous: he wrote a book, still extant, *De Arte Conquinariâ*, on the pleasures of, and the excitements to eating, and well worthy the attention of gastronomists. It is quoted with eulogium in the *Almanac des Gourmands*, and contains some good "peptic precepts." This belly-god hanged himself because his steward reported that he had only eighty thousand pounds sterling left, (*centies sestertium*,) which he calculated would only suffice for one supper. According to that curious and most minute compiler, Dr. Arbuthnot, he had spent on his kitchen alone £807,291 13s. 4d. But with all his epicurism and reckless expense in the indulgence of that propensity, he was contented to eat stale sandwich oysters at Rome, instead of traveling to Britain to enjoy them fresh. In this taste he was followed by George II., to supply whose table oysters verging on decomposition were advertised for at a high premium.

It is recorded of the Emperor Claudius Albinus, who reigned for a short period, A.D. 198, that he ate one day for his breakfast five hundred figs, one hundred peaches, ten melons, one hundred fig-peckers, forty Adriatic oysters, (they are nearly a foot in diameter,) and a large supplement of grapes. It was well for him that cholera was unknown in those days. We

* Agamemnon.

may think that after such a dose of fruit, he might have called out with Mad Tom in *Lear*: "Hopdance cries within me for three white herrings." A certain Phago, in presence of the Emperor Aurelian, devoured a whole sheep, a wild boar, a young pig, with five hundred loaves, and wine in proportion. Theodoret, a Greek father of the early part of the fifth century, tells of a Syrian woman, unnamed, who consumed daily thirty pullets, and was never known to be satisfied. It appears, however, that Macedonius cured her by making her drink the holy water which had been sanctified according to rule.

In the year of our Lord 235, the Roman Emperor Maximin, originally a Thracian peasant, (we must remember he was a son of Anak, being eight feet high,) dispatched daily at his dinner forty pounds of beef and nineteen bottles of wine. He expanded to such a size, in consequence, that his wife's bracelets served him for rings to his fingers.

But all these cases of *bulimia* sink into nothing when paralleled with the disease of the Emperor Vitellius. We learn from Suetonius, and other reliable authorities, that all the roads in Italy, and the two seas, Mediterranean and Adriatic, were covered with emissaries solely employed in providing the most exquisite meats and the choicest fish for his ravenous symposia. He made four meals per diem, sometimes taking an emetic between each, that he might more speedily unload his stomach, and be ready for a fresh onslaught. He was so insatiable, that during the pontifical sacrifices he was often seen to snatch the animal's entrails from the fire half-baked, and devour them in presence of the assembled crowd. He invited himself to his friends' houses, who trembled when the imperial visit was announced, for he made them entertain him so sumptuously, that ruin often ensued. A single feast swallowed up a year's rental. His brother, Lucius Vitellius, once treated him with two thousand fishes, and seven thousand singing-birds, all exquisitely delicate and scarce. The expense of his table amounted to seven millions sterling in the space of four months. He had always ready in his larder thousands of pheasants' livers, tongues of fishes, peacocks' brains, and the tails of lampreys.

The moderns can not quite reach the mark of the ancients, but they have nev-

ertheless exhibited some memorable feats in mastication. Furetiere, in the *Flaviana*, p. 8, says that he saw a man eat, without pausing to take breath, a loin of veal, a capon, and two woodcocks, with four pounds of bread. In 1812, an account appeared in the papers of a countryman who, for a bet, devoured at a meal, by measurement, as much tripe as would make him a jacket. Another, not long after, beat him by a waistcoat and nether integuments of the same material. We have somewhere read of a Capuchin friar, who ate, at one sitting, twelve omelets, each containing twelve eggs. The last Duke of Montague had a tenant, a Scotchman, whose manducatory powers were unrivaled. He challenged all England to a contest. A Norfolk bumpkin entered the lists, and was ignominiously beaten. The Duke was at dinner when his special messenger arrived with news of the issue. He ordered him in at once, and demanded particulars. "They began," said the envoy, "on two equal rounds of beef, one of which each dispatched in less than two hours. They then took two large legs of mutton, and in the middle of his the Englishman broke down and gave in." "Bravo!" exclaimed the Duke. "Our man then," proudly added the ambassador, "ate a goose!"

Voltaire relates that Charles Gustavus of Sweden, the successor of Queen Christina, was engaged in the siege of Prague, when a peasant of most appalling aspect, with tusks like a wild boar, desired admittance to his tent, and, being allowed entrance, offered, by way of amusing the King and his suite, to devour a whole hog, weighing two hundred-weight. The old General Königsmarck, who stood by the King's side, and who, soldier as he was, and fearless before the enemy, still retained some of the prejudices of his childhood, hinted to his royal master that the boor ought to be burnt as a sorcerer. "Sir," said the fellow, irritated at the suggestion, "if your Majesty will but make that little old gentleman take off his sword and spurs, I will eat him in your presence before I begin the pig." General Königsmarck, who at the head of his brigade had performed wonders against the Austrians, and was looked upon as one of the bravest men of the age, could not face this proposal, especially as it was accompanied by a most hideous and preternatural expansion of the frightful an-

thropophagus's jaws. Without uttering a word, he wheeled suddenly round, ran out of the tent, and thought himself unsafe until he reached his own quarters, where he double-locked himself in for four-and-twenty hours, before he could shake off the panic which had so completely unmanned him.

From the London Eclectic.

M O D E R N P H I L O S O P H Y .

AMONG our numerous histories of moral and metaphysical science we must always assign a foremost place to that of Mr. Maurice, of which we have received now the last volume: *Modern Philosophy; or, a Treatise of Moral and Metaphysical Philosophy, from the Fourteenth Century to the French Revolution, with a Glimpse into the Nineteenth Century.* By the Rev. Frederick Denison Maurice, M.A. (Griffin, Bohn & Co.) We had intended devoting a much larger space to a notice of this volume. Its predecessors of the same series will be known to our readers, and we most heartily commend it to the notice and the warm reception of students, especially young students. The scholar and the large-hearted man—rare combination!—are visible on every page. There is caution and conscientiousness visible throughout; nor do we hesitate to say that of all histories of mental science this is the most interesting. A large, bulky volume, of nearly seven hundred pages, it is as fascinating as a history by Macaulay, or a novel by Bulwer. The reason of this is obvious: all the opinions and wordy wars of the ancient schoolmen pass through the mental history of the historian himself. Evidently enough he is not contented with reading their books, and quoting from them in illustration of their dogmas; he lives himself in the moral region and latitude of their thought or opinion; and this has rarely been done. It is common enough now for the national historian to make himself acquainted with all the typographic circumstances which can throw light upon an event. He acquaints himself with all the relations of the times. Even the dress of

his heroes is a necessary part of the study of historical costume; but of the accoutrements and surroundings of the great masters, and lords, and warriors in dialectic science, historians have been more careless. And how remarkably this is the case in all studies of Church history, in which we find one historian giving the stream of dogmas and opinions, and theological and metaphysical distinctions, and another the stream of objective events and the procession of men, characters, and martyrs. It has been so with the study of mental and moral science: a cold history of abstract ideas, separated from forms. From this charge the history before us must be exempted. It would not be possible for the warm, loving human heart of Mr. Maurice, whose very errors are all related to the intense real affectionateness of his nature, to write thus. We may confess—not being *Saturday Reviewers* or *Athenæum* critics, all of whom are at once ubiquitous and omniscient, having an unction to know all things—there are many of these lords of thought referred to, and summarily and distinctly characterized by Mr. Maurice, whom we only know through such works as the present. We may mention the works of William of Occam, Gerson, Nicolas von Cusa, Savonarola, and Giordano Bruno, and even Benedict Spinoza; but we believe in this volume the thoughts of these men are given with a rare and lucid fidelity. We have always thought Mr. Maurice singularly clear when describing or analyzing opinions of past ages. When he comes into the arena of polemics, we can not but think that a strange fit of redundancy comes over his pen, and a strange haze of mystical indefiniteness veils his pages. His literary charac-

ter would always gain by a greater sharpness and point in his pen; but from those which many would regard as the faults of his style, or his thought, the volume before us is most happily free. It is a wonderful history; an amazing spectacle; the long-continued battle in the kingdom of abstractions, the war of words against things, and things against words, incessantly renewed; constantly from age to age changing the battle-field from Oxford to Paris, from Florence to Wittemberg. London never had a university, and never led on in this great war of abstract thought and opinion; and still in our own time we find the contest of Nominalist and Realist renewing and renewed. Ordinary minds, and even minds we would not venture to call ordinary, are unable to enter into these disputes, can not live in the arena where disputes go on touching pure thought, and being; yet, to the disputants, all was most real—this seeking for the ground of the soul, analyzing and dissecting spirits, in search of the organ by which it may be possible to apprehend the divinest truths; and, indeed, it is not possible to study long in these matters with a thoughtful mind, without becoming fascinated by them. It is interesting to notice how long, how patiently, how painfully men studied before they discovered truths which now we handle like our daily bread. It is with things spiritual and mental, as with the worlds of science and mechanism: we avail ourselves of the past ages, and the pains of the past become the happiness of the present. Simple propositions, now instantly received as truisms, like all truisms, even needed to be discovered to be such. It was not always self-evident that consciousness is deeper than sensation. We believe Mr. Maurice is quite correct in his supposition, that "there is a growing belief, a feeling among the rich and prosperous, that the invisible world has no interest for men in a refined state of civilization." It is mournfully true; but as this belief obtains a hold, we believe it certain that the springs of every noble sentiment will dry up, and leave the man a mummy, and the world a coffin.

We trust that this book will be a corrective to the singularly able *Biographical History of Philosophy*, by Mr. George Henry Lewes, whose very first sentences express a doctrine in harmony with Mr. Maurice's accusation against the age: "Philosophy is everywhere in Europe fallen into discredit—the movement of

Philosophy has been circular, the movement of Science has been linear." We think the History of Mr. Maurice tells another story. Being a Christian, he believes in a world whose strata lie beyond the pickaxes and spades of science; and, perhaps, if Mr. Lewes thought as much upon his own nature as upon the physiology of bodies, he might see some reason to believe so too. The men who have made these questions the topics of their study really believed, and saw evidence for the belief, in the identity and individuality of soul: its life was something more to them than a complication and happening of physiological organization. The reader may take one name, one book, from the multitude of metaphysical treatises, and it may read even like the delirious wanderings of a sleep-walker to those who settle all these things in the surgery. But this method of delirium pursued and persisted in from age to age—this long catalogue of persons to whom truth was interesting and absorbing for its own sake; to whom the problem of pure being could only present a solution from its subjective side and aspect—why, at last they become the most overwhelming proof for the existence of a being which physiological science can not touch, and a kind of truth which physiological science can not handle. Metaphysics is not the study to which ordinary minds devote themselves much; its advantages are not obvious. Science has very obvious advantages. In this the two are like those obvious things, pudding and Euclid, to a schoolboy. Pudding gets far more faith; still, Euclid is not without advantage to the mind, although left by pudding and Mr. G. H. Lewes so far in the rear. And thus, to our readers, especially students, we again commend this volume—volumes, indeed—of Mr. Maurice, as by far the best, most comprehensive and safe history of mental and moral science with which we are acquainted. He prints the well-known prayer of Malebranch in his notice of the great French philosopher. It is worthy to be commended to the deep pondering and repetition of all our readers:

"O Eternal Wisdom! I am not a light to myself; and the bodies which surround me can not illuminate me: the superior intelligences themselves, seeing that they contain not in themselves the reason which makes them wise, can not communicate that reason to my mind. Thou alone art the Light of angels and of men; thou alone art the universal Reason to all minds.

Thou art the very Wisdom of the Father—Wisdom eternal, unchangeable, necessary, who makest wise creatures, and even, though in a manner altogether different, the Creator. O thou, my true and only Master, show thyself to me! Cause me to see light in thy light. I appeal only to thee. I would consult none but thee. Speak, thou Eternal Word, the Word of the Father, that has been always uttered, that utters itself now, that will utter itself forever. Oh! speak, and so loudly that I may hear thee through all the confused noises which my senses and my passions are continually making in my soul. But O Jesus! I beseech thee to speak in me only for thy glory, and to make me

know only thy greatness, for in thee are hidden all the treasures of the wisdom and knowledge of God. He who knoweth thee knoweth the Father, and he who knoweth thee and the Father is perfectly blessed. Cause me, then, to know, O Jesus! what thou art, and how all things subsist in thee. Penetrate my mind with the brightness of thy glory; consume my heart with the fire of thy love. Grant me in this work, which I compose only for thy glory, expressions clear and true, full of life and soul; expressions worthy of thee, and such as shall increase in me, and in those who share my meditations, the knowledge of thy greatness, the sense of thy mercies."

From the Edinburgh Review.

MEMOIRS OF RICHARD THE THIRD.*

RULERS with doubtful titles are commonly anxious to rule well; and Richard laid himself out from the commencement of his reign to found a reputation for moderation, equity, and forgiveness of private injuries. "The day after his acceptance of the crown," says More, "he went to Westminster, sat himself down in the Court of King's Bench, made a very gracious speech to the Assembly there present, and promised them halcyon days. He ordered one Hog, whom he hated, and who was fled to sanctuary for fear of him, to be brought before him, took him by the hand, and spoke favorably to him, which the multitude thought was a token of his clemency, and the wise men of his vanity."

He formally enjoined the great barons to see to the equal administration of justice in their provinces; and a cotemporary sketch of his progresses speaks of "his lords and judges in every place, sitting determining the complaints of poor folks, with due punishment of offenders against the laws." In a circular letter to the bishops, he expresses his fervent desire for the suppression of vice; "and this perfectly followed and put in execution by persons of high estate, preëminence, and dignity, in-

duces persons of lower degree to take thereof example, and to insure the same." His legislative measures are admitted to have been valuable additions to the Statute Book.

Edward IV. was always in want of money, and was in the habit of personally appealing to his wealthiest subjects for contributions. "And here," says the chronicler, "I will not let passe a prettie conceipt that happened in this gathering, in which you shall not only note the humilitie of a king, but more the fantasie of a woman. King Edward had called before him a widow much abounding in substance, and no lesse growne in years, of whom he merily demanded, what she gladly would give him toward his great charges. By my trothe, quoth she, for thy lovely countenance thou shalt have even twentie pounds. The King looking scarce for the half of that sum, thanked her, and lovinglie kissed her. Whether the flavor of his breath did so comfort her stomach, or she esteemed the kiss of a king so precious a jewele, she swore incontinentlie, that he should have twentie pounds more, which she with the same will paid that she offered it."* Richard went on an opposite tack. When the ci-

* Concluded from page 364.

* Holingshed, vol. iii. p. 33.

tizens and others offered him a benevolence, he refused it, saying: "I would rather have your hearts than your money."

He disforested a large tract of country at Witchwood, which his brother had cleared for deer, and showed at the same time his wish to promote all manly and popular amusements by liberal grants and allowances to the masters of his hounds and hawks. There is, moreover, extant a mandate to all mayors and sheriffs not to vex or molest John Brown, "our master-guider and ruler of all our bears and apes to us appertaining." He is commended by cotemporaries for his encouragement of architecture; and the commendation is justified by a list of the structures which he completed or improved. His love of music is inferred from the extreme measures he adopted for its gratification. Turner quotes a warrant "empowering one of the gentlemen of his chapel to take and seize for the King's use, all such singing men and children, expert in the science of music, as he could find and think able to do the King service, in all places in the kingdom, whether cathedrals, colleges, chapels, monasteries, or any other franchised places except Windsor." He was visited by minstrels from foreign countries, and he gave annuities to several professors of the gentle science; "and also," adds Turner, "perhaps from his fondness for their sonorous state music, to several trumpeters." His example, therefore, indirectly refutes the famous Shakspearian theory—"The man that has no music in his soul"—which Steevens contends is fit only to supply the vacant fiddler with something to say in praise of his idle calling. If Richard was an innate villain, he is at all events a proof that one who is "moved with concord of sweet sounds" may be as "fit for treasons, stratagems, and spoils" as one who can not distinguish "Rule Britannia" from "Nancy Dawson." Mr. Jesse will have it that Richard's nature was originally a compassionate one; and he appeals to the pensions considerably bestowed by him on the widows of his enemies, Lady Hastings, Lady Rivers, Lady Oxford, and the Duchess of Buckingham.

A few months after the death of the young princes, the clergy in convocation assembled drew up and presented a petition to him, complaining that churchmen were cruelly, grievously, and daily troubled, vexed, indicted, and arrested; and

prayed for relief, "seeing your most noble and blessed disposition in all other things." Probably this is a precedent for the revival of Convocation in all its glory, on which the Bishop of Oxford and the other right reverend upholders of that venerated institution will not be anxious to rely.

Sir Thomas More states that Richard, in the hight of his prosperity, could never silence the whispers of his conscience, and could not lie quiet in his bed for dreams and visions. So Anne is made to complain:

"For never yet one hour in his bed
Did I enjoy the golden dew of sleep;
But with his tim'rous dreams was still awak-
ened."

We suspect that the instability of his position had more to do with his uneasy nights than the sense of guilt; for men of his temper, habituated to deeds of blood and projects of aggrandizement from boyhood, are little subject to remorse. He knew that the majority of the great nobles were plotting round him, and that it was beyond his power to satisfy the rapacity of all who had helped him to the throne. The Percys turned against Henry IV. on the plea of his ingratitude. Warwick changed sides because he was personally slighted, or disappointed; and Buckingham, in a nearly analogous position, was pretty sure to try whether he could not pull down what he had so largely contributed to set up. His motives have given rise to much ingenious speculation, and were probably mixed. He may (as Shakspeare takes for granted) have been refused the promised earldom and domains of Hereford, although a formal grant of them has been discovered amongst some old records, or, being of the blood-royal, he might have hoped to get the crown for himself. He told Morton that he could no longer abide the sight of Richard after the death of "the two young innocents." He accordingly transferred his allegiance to the Earl of Richmond; who, when the arrangements for a simultaneous rising in several parts of England were complete, set sail from St. Malo with a force computed at five thousand soldiers. His friends keeping faith, the insurrection assumed formidable proportions in Devonshire, Wiltshire, Berkshire, and Kent. Buckingham had collected a large force in Wales. But it was impossible to elude Richard's watchfulness; and fortune had

not yet deserted him. Richmond's fleet was driven back by a tempest, and Buckingham was stopped by an inundation of the Severn and the neighboring rivers, so terrible, that, for a century afterward, it was spoken of as Buckingham's Great Water. The result is succinctly told by Shakspeare:

"*Mess.* My lord, the army of great Buckingham—

"*K. Rich.* Out on ye, owls! nothing but songs of death.

[*He strikes him.*]

"*Mess.* The news I have to tell your majesty is—that by sudden floods and fall of waters Buckingham's army is dispersed and scattered; And he himself wandered away alone, No man knows whither."

After another messenger has delivered an equally cheering report,

"*Enter CATESBY.*

"My liege, the Duke of Buckingham is taken. That's the best news.—That the Earl of Richmond

Is with a mighty power landed at Milford, Is colder tidings, yet it must be told.

"*King.* Away toward Salisbury; while we reason here

A royal battle might be won and lost. Some one take order Buckingham be brought To Salisbury: the rest march on with me."

Many readers will be as much puzzled by this passage as was the Drury Lane audience on the night when John Philip Kemble, feeling ill, left out the line* which provoked a nightly conflict with the pit. The point or claptrap which they miss was interpolated by Cibber in what, with a few subsequent changes, is still the acting edition of the play:

"*Enter CATESBY.*

"My liege, the Duke of Buckingham is taken.

"*Rich.* Off with his head: so much for Buckingham."

This is the popular reading, and a story is current in theatrical circles of the ludicrous confusion of a celebrated actor who piqued himself on the delivery of the line given to Richard, when the Catesby of the evening thus varied his part:

"My liege, the Duke of Buckingham is taken, And, without orders, they've cut off his head."

* "For this be sure to-night thou shalt have aches." The story is told by Scott, *Prose Works*, vol. xx. p. 188.

Cibber's Richard is printed amongst his works under the title of *The Tragical History of King Richard III. as it is now acted at the Theater Royal, Drury Lane. Altered from Shakspeare, by Mr. Cibber. London. Printed in the year 1721.* Indignation is naturally excited by the bare notion of Shakspeare corrected by Cibber, and we are prepared to hear of "gilding refined gold, painting the lily," etc. Yet the best critics are agreed that the success of the drama as an acting play is mainly owing to him. Their concurrent estimate is thus expressed by Steevens: "The hero, the lover, the statesman, the buffoon, the hypocrite, the hardened and repenting sinner, etc., are to be found within its compass. No wonder, therefore, that the discriminating powers of a Burbage, a Garrick, and a Henderson, [a Kean and a Macready,] should at different periods have given it a popularity beyond other dramas of the same author. Yet the favor with which this tragedy is now received, must also in some measure be imputed to Mr. Cibber's reformation of it, which, generally considered, is judicious." No modern audience, we agree with him, would patiently listen to the narrative of Clarence's dream, his expostulation with the murderers, the prattle of his children, the soliloquy of the scrivener, the tedious dialogue of the citizens, the ravings of Margaret, the vehement interchange of curses and invectives with which whole scenes are stuffed, or the repeated progresses to execution. In fact, Shakspeare's ordinary fertility of resource is frequently belied by this play; for Clarence's dream (in which the betrayed Warwick and the murdered of Tewkesbury appear to him) foreshadows Richard's; and the scene in which he extorts the reluctant consent of Elizabeth,

"Relenting fool, and shallow, changing woman,"

too closely resembles that in which he woos and wins Anne. His new marriage project is thus broached to his convenient tool, Catesby:

"I say again, give out

That Anne, my queen, is sick and like to die.

About it, for it stands me much upon

To stop all hopes, whose growth may damage me.

[*Exit CATESBY.*]

I must be married to my brother's daughter,
Or else my kingdom stands on brittle glass.
Murder her brothers, and then marry her!
Uncertain way of gain!"

It is one of the strangest stories of these strange times that the young and lovely Princess Elizabeth was in love with the wicked crook-backed uncle who had murdered her brothers; and that, in declared rivalry with her aunt, she appeared at the Christmas festivals of 1484 in royal robes exactly similar to those of the Queen, who died the March following of a languishing distemper. His tongue must have surpassed that of the original tempter, or the great ladies of those days must have had an uncommon share of their sex's weakness, if one after the other consented to overlook notorious crime and suppress natural horror in this fashion; for it would seem that the Princess's inclinations were sanctioned by her mother, the widow of Edward IV., who, if possible, had still stronger grounds of abhorrence. Another curious sign of the times is the oath by which he induced his nieces to leave the sanctuary and trust themselves in his power. This document, dated March 1st, 1484, begins thus:

"I, Richard, by the grace of God king, etc., in the presence of you, my lords spiritual and temporal, and you, mayor and aldermen of my city of London, promise and swear, *terbo regio*, upon these Holy Evangelists of God, by me personally touched, that if the daughters of Dame Elizabeth Gray, late calling herself Queen of England; that is, to wit, Elizabeth, Cecily, Anne, Katherine, and Bridget, will come unto me out of the sanctuary at Westminster, and be guided, ruled, and demeaned after me, then I shall see that they shall be in surety of their lives, and also not suffer any manner of hurt by any manner of person or persons, to them or any of them, on their bodies and persons, to be done by way of ravishment or defouling, contrary to their will."

He further swears to marry them to gentlemen by birth, to endow each of them to the amount of two hundred marks *per annum*, and to discredit any reports to their disadvantage, till they shall have had opportunity for lawful defense and answer.

There is good reason to believe that Richard continued warmly attached to his early love and wedded wife, Anne; who never recovered the death of their son, and languished, says Buck, "in weakness

and extremity of sorrow, until she seemed rather to overtake death, than death her." Richard might easily have procured a dispensation to marry his niece, had he been so minded; but the project was never carried further than was required to break off or delay her marriage with her future husband, Richmond; and when this purpose had been answered, he publicly assured the citizens of London that he never so much as contemplated the union.

The shortness of his reign favors the notion that the nation, exasperated beyond endurance by his villainies, rose and threw him off like an incubus. But nothing of the kind occurred. The people at large were too much inured to scenes of blood and acts of cruelty, to be shocked by them. They cared little or nothing whether a few princes or lords, more or less, were put to death, so long as they were not fleeced by the tax-gatherer or oppressed by a local tyrant; and Richard, like Cromwell at a later period, took good care that there should be no usurped or abused authority besides his own. He was not weighed in the balance and found wanting, till two discontented nobles, the Stanleys, threw their whole weight into the opposing scale. The numerical inferiority of Richmond's army is a conclusive proof that his cause was not a preëminently popular one. After landing at Milford Haven, (August 6th, 1485,) he proceeded by a circuitous route through Wales, in the hope, which was not disappointed, of profiting by his Welsh blood and connections. On arriving at Shrewsbury, the gates, after a short parley, were opened to him by Mitton, the sheriff, who had sworn fidelity to Richard, but fortunately discovered a mode of breaking his oath without hurt to his conscience. He had sworn that Richmond should go over his belly before entering the tower, meaning of course that he would die in its defense, "soe when they entered, the sayd Mitton lay alonge the ground wyth his belly upwards, and soe the said Earle stepped over hym and saved his othe."

On Tuesday, August 16th, Richard quitted Nottingham at the head of all the forces he could collect, and entered Leicester the same evening a little after sunset. He took up his quarters in a large half-timber house, standing within living memory; and slept in a bed, the remains of which were recently in existence. It had a false bottom, in which a large sum of money

could be concealed, and did duty as a military chest. He passed the night of the seventeenth at Elmsthorp, eleven miles from Leicester; and on the eighteenth pitched his camp at a place called the Bradshaws, a mile and a half from Bosworth Field. Richmond advanced by Lichfield and Tamworth to Atherstone, close to the Field; where he arrived on the twentieth, after having held a private council with the Stanleys on the way. Judging from the result, their plan is concluded to have been that, whilst Richmond marched directly to the field, Lord Stanley should take up a position on the right, and Sir William on the left, so that, when the four armies were marshaled, they would form a hollow square; the two brothers to remain neuter unless their aid should prove indispensable. There were good reasons for this saving clause; for Lord Strange, Lord Stanley's eldest son, was a hostage in the hands of Richard; and though the usurper might be defeated, it did not follow that he would be killed, or lose all future chance of taking full vengeance on false friends. According to Hutton's estimate, Richard brought into the field twelve thousand men, Richmond more than seven, Lord Stanley five, and Sir William Stanley three. The same impartial and well-informed writer succinctly sums up the respective merits and pretensions of the rivals: "Were I allowed to treat royalty with plainness, Richard was an accomplished rascal, and Henry not one jot better. Which had the greatest right to the crown, is no part of the argument; neither of them had any. Perhaps their chief difference of character consisted in Richard's murdering two men for Henry's one; but as a small counter-balance, Richard had some excellencies, to which the other was a stranger."

The powers of upper air may therefore be supposed to have remained neuter, and each of the combatants passed probably an equally agitated night. We learn from an anecdote that Richard had lost nothing of his vigilance or unrelenting sternness. Going the rounds he found a sentinel asleep, and stabbed him, with the remark: "I found him asleep, and have left him as I found him." For summary administration of martial law, this beats Frederick the Great's famous postscript to the subaltern's letter to his wife.

The influence of omens on the English of all classes is mentioned by Philip de

Commines, and Richard is reported to have been peculiarly subject to it. "During his abode at Exeter," says Holingshed, "he went about the citie, and viewed the seat of the same, and at length he came to the castle; and when he understood that it was called Rugemont, suddenlie he fell into a dumpe, and (as one astonied) said: 'Well, I see my daies be not long.' He spake this of a prophecy told him that when he came once to Richmond, he should not live long after." He had more rational cause for alarm when Jockey of Norfolk produced the doggerel warning found in his tent, for it clearly indicated the desertion and treachery that were about to prove fatal to him.

Shakspeare's representation of the battle is unaccountably tame, for he has made little or no use of the many stirring episodes and incidents supplied by the chroniclers. Early in the morning, Sir Robert Brakenbury delivered this message to Lord Stanley: "My lord, the King salutes you, and commands your immediate attendance with your bands, or, by God, your son shall instantly die." About the same time, Sir Reginald Bray came with a pressing message from Richmond. Stanley replied to Brakenbury: "If the King stains his honor with the blood of my son, I have more; but why should he suffer? I have not lifted a hand against him. I will come at a convenient time." When this answer was brought to Richard, he exclaimed: "This is a false pretense. He is a traitor, and young Strange shall die. Catesby, see to it." Strange was brought forth, and the executioner was getting ready the ax and the block, when Lord Ferrers of Chartley warmly remonstrated, and extorted a reprieve, mainly by urging that Lord Stanley might be still undecided. This is rather weakly rendered by—

"Send out a pursuivant at arms

To Stanley's regiment; bid him bring his power

Before sun rising, lest his son George fall
Into the blind care of eternal night.

What says Lord Stanley? Will he bring his power?

"*Mass.* My lord, he doth deny to come.

"*Rich.* Off instantly with his son George's head.

"*Nor.* My lord, the enemy has passed the marsh:

After the battle let George Stanley die."

The vanguard of Richard's army was

commanded by the Duke of Norfolk; the center and main body by the King himself, who rode at their head, mounted on his celebrated milk-white steed—

“Saddle White Surrey for the field to-morrow”—

and arrayed in the splendid suit of armor which he had worn at Tewkesbury. Like Henry V. at Agincourt, he wore a golden crown, not (as Hutton takes care to tell us) as a man would wear a hat or cap, but by way of crest over his helmet, instead of the grinning boar's head in which Sir E. Bulwer Lytton portrays him scattering dismay at Barnet. Richmond, too, bore himself gallantly, and rode through the ranks, marshaling and encouraging his men, arrayed in complete armor, but unhelmeted. His vanguard, commanded by the Earl of Oxford, began the battle by crossing the low ground toward the elevated position where Richard prudently waited the attack. “The trumpets blew, and the soldiers shouted, and the King's archers courageously let fly their arrows. The Earl's bowmen stood not still, but paid them home again; and the terrible shot once passed, the armies joined, and came to hand-strokes.”* The leaders of those days deemed it a point of honor to fight hand to hand, if possible, and Oxford and Norfolk managed to engage in a personal encounter, which would form a fitting subject for an Ariosto or a Scott. After shivering their spears on each other's shields or breastplates, they fell to with their swords. Oxford, wounded in the arm by a blow which glanced from his crest, returned it by one which hewed off the vizor of Norfolk's helmet, leaving the face bare; and then, disdaining to follow up the advantage, drew back, when an arrow from an unknown hand pierced the Duke's brain. Surrey, hurrying up to assist or avenge his father, was surrounded and overpowered by Sir Gilbert Talbot and Sir John Savage, who commanded on the right and left for Richmond:

“Young Howard single with an army fights;
When, moved with pity, two renowned knights,
Strong Clarendon and valiant Conyers, try
To rescue him, in which attempt they die.

* Grafton, vol. ii. p. 154. Balls of about a pound and a half weight have been dug up on the field, but none of the chroniclers speak of artillery as used by either side.

Now Surrey, fainting, scarce his sword can hold,
Which made a common soldier grow so bold,
To lay rude hands upon that noble flower,
Which he disdaining—anger gives him power—

Erects his weapon with a nimble round,
And sends the peasant's arm to kiss the ground.”*

If we may credit tradition or the chroniclers, all this was literally true. When completely exhausted, Surrey presented the hilt of his sword to Talbot, whom he requested to take his life, and save him from dying by an ignoble hand. He lived to be the Surrey of Flodden Field, and the worthy transmitter of “all the blood of all the Howards.”

Hutton contends that, although Norfolk had fallen and Lord Stanley had closed up whilst the vanguard were engaged, no decisive advantage had been gained, when Richard made that renowned charge, which historians describe as the last effort of despair. He was bringing up his main body when intelligence reached him that Richmond was posted behind the hill with a slender attendance. His plan was formed on the instant; nor, although fiery courage or burning hate might have suggested it, was it ill-judged or reckless. Three fourths of the combatants, if we include the Stanleys, were ready to side with the strongest. Richmond's army, without Richmond, was a rope of sand. His fall would be the signal for a general scattering or a feigned renewal of hollow allegiance to the conqueror. Neither did the execution of the proposed *coup de main* betoken a sudden impulse inconsiderately acted upon. Richard rode out at the right flank of his army, and ascended a rising ground to get a view of his enemy, with whose person he was not acquainted. He summoned to his side a chosen body of knights, all of whom, with the exception of Lord Lovell, perished with him, and he paused to drink at a spring, which still goes by his name. It must have been here, if anywhere, that Catesby, a civilian, called his attention to Sir William Stanley's suspicious movements, and urged him to fly, offering a fresh horse; but there is no authority for making Catesby exclaim to Norfolk, slain an hour ago:

* “Bosworth Fields,” by Sir John Beaumont, Bart., quoted by Mr. Jesse from Weaver's *Funeral Monuments*, p. 554.

"Rescue, my lord of Norfolk, rescue, rescue!
The King enacts more wonders than a man,
Daring an opposite to every danger.
His horse is slain, and all on foot he fights.
Seeking for Richmond in the throat of death."

For aught that is known, it was White Surrey that, like Hotspur's roan, was to bear him like a thunderbolt against the bosom of his foe; and it was spear in rest that he dashed amongst Richard's surprised and fluttered body-guard. "Richard was better versed in arms, Henry was better served. Richard was brave, Henry a coward. Richard was about five feet four, rather runted, but only made crooked by his enemies; and wanted six weeks of thirty-three. Henry was twenty-seven, slender, and near five feet nine, with a saturnine countenance, yellow hair, and gray eyes."

Such is Hutton's estimate of the personal prowess of the pair who were now contending for a kingdom. What follows sounds fabulous, unless we bear in mind the reflection with which Scott accompanies his sketch of Claverhouse unhorsing Balfour of Burleigh. "A wonderful thing it was afterward thought that one so powerful as Balfour should have sunk under the blow of a man to appearance so slightly made as Claverhouse, and the vulgar of course set down to supernatural aid the effect of that energy which a determined spirit can give to a feebler arm." We all recollect the Countess of Auvergne's wonder at the sight of Talbot, whom she calls "a weak and writhled shrimp;" and the hero of one of the most spirited feats of arms recorded by Froissart is a humpbacked, little knight, whose head and shoulders only just appeared over his raised saddle-bow. According to Grafton, Richard, so soon as he descried Richmond, "put spurs to his horse, and like a hungry lion ran with spear in rest toward him." He unhorsed Sir John Cheney, a strong and brave knight,* and

* "Sir John Cheney, of Shirland, personally encountering King Richard, was felled to the ground by the monarch, had his crest struck off and his head laid bare; for some time, it is said, he remained stunned; but recovering after awhile, he cut the skull and horns off the hide of an ox which chanced to be near, and fixed them upon his head to supply the loss of the upper part of his helmet: he then returned to the field of battle, and did such signal service that Henry, on being proclaimed king, assigned Cheney for crest the bull's scalp, which his descendants still bear."—*Sir Bernard Burke, Vicissitudes of Families*, p. 350.

rushing on Sir William Brandon, Henry's standard-bearer, cleft his skull, tore the standard from his grasp, and flung it on the ground. "He was now," says Hume, "within reach of Richmond himself, who declined not the combat." Others say Richmond drew back, as a braver man might have done in his place—

"No craven he, and yet he shuns the blow,
So much confusion magnifies the foe."

Fortunately for him, Sir William Stanley came up at the very nick of time "with three thousand tall men," and overpowered Richard, who died, fighting furiously, and murmuring with his last breath, *Treason! treason! treason!* So nicely timed was Stanley's aid, that Henry afterward justified the ungrateful return he made for it by saying: "He came time enough to save my life, but he staid long enough to endanger it." Richard received wounds enough to let out a hundred lives; his crown had been struck off at the beginning of the onset: and his armor was so broken, and his features were so defaced, that he was hardly to be recognized when dragged from beneath a heap of slain—

"His hand still strained the broken brand,
His arms were smeared with blood and sand;
Dragged from among the horses' feet,
With dinted shield and helmet beat,
The falcon crest and plumage gone—
Can that be haughty Marmion?"

And can that stripped and mutilated corpse be the crowned monarch who at morning's rise led a gallant army to an assured victory, who had recently been described by a distinguished foreigner as holding the proudest position held by any king of England for a hundred years? Nothing places in a stronger light the depth of moral degradation and insensibility, fast verging toward barbarism, to which men's minds had been sunk by the multiplied butcheries of these terrible conflicts, than the indignities heaped upon the dead King, with the sanction, if not by the express orders, of his successor. The body, perfectly naked, with a rope round the neck, was flung across a horse, like the carcass of a calf, behind a pursuivant-at-arms bearing a silver boar upon his coat, and was thus carried in triumph to Leicester. It was exposed two days in the Townhall, and then buried without

* Philip de Commines.

ceremony in the Grey Friars Church. At the destruction of the religious houses, the remains were thrown out, and the coffin, which was of stone, was converted into a watering-trough at the White Horse Inn. The best intelligence that Mr. Hutton, who made a journey on purpose in 1758, could collect concerning it, was that it was broken up about the latter end of the reign of George the First, and that some of the pieces had been placed as steps in a cellar of the inn. "To what base uses we may return, Horatio!" The sign of the White Boar at Leicester, at which Richard slept, was forthwith converted into the Blue Boar; and the name of the street, called after it, has been corrupted into Blubber Lane.

As to the person of Richard, we agree with Buck and Walpole. "The truth," says Walpole, "I take to have been this: Richard, who was slender and not tall, had one shoulder a little higher than the other, a defect by the magnifying-glasses of party, by distance of time, and by the amplification of tradition, easily swelled to shocking deformity." The impression left by a marked personal peculiarity may be unconsciously heightened and transmitted till it becomes inextricably woven into the web of history. Thus Lord Macaulay, a warm admirer of both Luxembourg and William, winds up a brilliant paragraph by the remark that amongst the one hundred thousand men engaged at Landen, "perhaps the two feeblest in body were the humpbacked dwarf who urged on the fiery onset of France, and the asthmatic skeleton who covered the slow retreat of England." The strongest argument in favor of Richard's personal

appearance is that drawn from Dr. Shaw's address to the citizens of London preparatory to the usurpation. After contending that the illegitimacy of Edward IV. and Clarence was obvious from their likeness to persons with whom their mother had intrigued, he went on: "But my Lord Protector, that very noble Prince, the pattern of all heroic deeds, represents the very face and mind of the great Duke his father. His features are the same, and the very express likeness of that noble Duke." At these words, the Protector was to enter as if by chance; and although the point was missed by his non-appearance till a few minutes later, such a *coup de théâtre* would hardly have been hazarded if Richard either presented no resemblance or a miniature and caricature one of his father. A Scotch prelate, one of the commissioners for concluding the marriage between Prince James of Scotland and the Lady Anne de la Pole, thus alludes to Richard's stature in his address:

"He (the King of Scotland) beholds in your face a princely majesty and authority royal, sparkling with the illustrious beams of all moral and heroical virtue."

He had a habit of gnawing his under lip and a trick of playing with his dagger, which, although misconstrued into signs of an evil disposition, were probably mere outward manifestations of restlessness. Polydore Virgil speaks of his "horrible vigilance and celerity." It was the old story of the sword wearing out the scabbard; and the chances are that he would not long have survived Bosworth Field had he come off unscathed and the conqueror.

C A P T A I N J O H N E R I C S S O N .

THE name of Ericsson has become renowned in Naval Architecture. The tremendous conflict between the Monitor and the Merrimac, iron-clad steam-ships, has awakened a deep and perpetual interest in the minds of public men and the govern-

ments of the world. The Monitor, invented, constructed, and fitted in all her arrangements and naval armor for the wondrous conflict which has sent her renown over all Christendom, originated in the mechanical genius of Capt. Ericsson.

The achievements of the *Monitor*, and the principle on which her success depends, have become portions of our national history. A portrait of the man who has thus done honor to the country of his adoption, and furnished such surprising means of defense to the public interests in an hour of extreme peril, can hardly fail to excite curiosity and meet a welcome from the eye which gazes upon its strongly marked lineaments. It is a remarkable face. No one can scan it without a conviction that behind that face lie talent, genius, mechanical invention, and decision of character. The portrait has been accurately engraved, with fine artistic taste, by Mr. George E. Perine, both as an embellishment to this number and to gratify those who admire genius.

A brief biographical sketch will add interest and value to the portrait.

John Ericsson was born in the province of Wermeland, Sweden, in 1803. Being the son of a mining proprietor, his earliest impressions were derived from the engines and machinery of the mines. In 1814, he attracted the attention of Count Platen, the intimate friend of Bernadotte, and being appointed a cadet in the engineers, was employed as a *niveleur* at the Grand Ship Canal, where he set out the work for more than six hundred soldiers. In 1820, he entered the Swedish army as an ensign, and was soon promoted to a lieutenancy. His regiment being stationed in the northern highlands, where an accurate Government survey was in progress, Ericsson surveyed upward of fifty miles of territory, detailed maps of which, executed by his own hands, are yet in the archives of Sweden. In 1826, he obtained a leave of absence for a visit to England, with a view of introducing his invention of a flame-engine, which he had exhibited in a machine of about ten horse-power. This engine did not meet his expectations and involved heavy expenditures, which induced him to resign his commission and devote himself to mechanical pursuits.

Numerous inventions followed, among which may be mentioned the steam-boiler on the principle of artificial draft, for the introduction of which, Ericsson joined the established mechanical house of John Braithwaite. After having been applied to numerous boilers for manufacturing purposes in London with success, effecting a great saving in fuel and dispensing with the huge smoke-stacks, his invention was

applied to railway locomotion on the Liverpool and Manchester Railway in the fall of 1829. The directors had offered a prize for the best locomotive-engine, and within seven weeks of the time of trial, Ericsson heard of the offer, planned an engine, executed the working-drawings, and completed the machine. The lightest and fastest engine started on this occasion was the *Novelty*, which, guided by its inventor, Ericsson, started off at the rate of fifty miles an hour. The principle of artificial draft which characterized this engine, is yet retained in all locomotive-engines; but a different mode of producing it was accidentally discovered so soon after the display of the *Novelty*, that the original inventor derived no advantage from it. A similar engine of greater power he subsequently constructed for the King of Prussia. For this invention he received the prize medal of the Mechanics' Institute of New-York.

In 1833, he reduced to practice his long-cherished project of a caloric-engine, and submitted the result to the scientific world in London. The invention excited very general interest, and lectures were delivered in explanation and illustration of its principle by Dr. Lardner and by Professor Faraday. Ericsson's attention was next directed to navigation, the result of which was the invention of the propeller, and of that new arrangement of the steam machinery in ships of war which has revolutionized the navies of the world. Ericsson sought to bring these inventions to the favorable notice of the British Admiralty, and was listened to with polite but incredulous attention. He took their lordships on a trial-trip, in a vessel constructed with his new propeller, but he could not induce them to believe what they saw. He found a more confiding listener in Captain R. F. Stockton, of the United States Navy, by whose influence with the administration of that time at Washington, he was placed in a position to carry out his plans.

In 1839, Ericsson came to New-York. In 1841, he was employed in the construction of the United States ship-of-war, the *Princeton*, on the very plan which had been received with such indifference by the British Admiralty.

She was the first steamship ever built with the propelling-machinery under the water-line and out of the reach of shot.

In the United States division of the Industrial Exhibition of all nations in Lon-

don in 1851, Ericsson exhibited the distance-instrument, for measuring distances at sea; the hydrostatic gage, for measuring the volume of fluids under pressure; the reciprocating fluid-meter, for measuring the quantity of water which passes through pipes during definite periods; the alarm-barometer; the pyrometer, intended as a standard measure of temperature from the freezing-point of water up to the melting-point of iron; a rotary fluid-meter, the principle of which is the measurement of fluids by the velocity with which they pass through apertures of definite dimensions; and a sea-lead, contrived for taking soundings at sea without rounding the vessel to the wind, and independently of the length of the lead-line. For these he received the prize-medal of the Exhibition. In 1852, he was made a Knight of the order of *Vasa* by King Oscar of Sweden. In the same year he brought out a new form of coloric-engine in the ship *Ericsson*. He propelled this ship of two thousand tons from New-York to Alexandria on the Potomac, in very rough weather, in the latter part of February, 1853. Ericsson was invited by a

committee of the Legislature of Virginia to visit Richmond as the guest of the State. In the midst of numerous mechanical pursuits, Ericsson has since devoted himself to perfecting the coloric-engine. Step by step he has been advancing to admitted success. It is now applied to purposes of pumping, printing, hoisting, grinding, sawing, turning light machinery of various kinds, working telegraphic instruments, and propelling boats. More than two hundred of these engines are in successful operation. Ericsson still labors with the vigor and enthusiasm of boyhood. While engaged in carrying out his inventions, it is a common thing for him to pass sixteen hours a day at his table in the execution of detailed mechanical drawings, which he throws off with a facility and a style that have probably never been surpassed. Thus we found him busy on the day we wrote this for our present number. Such is the man whose portrait embellishes this number of *THE ECLECTIC*. The main facts of this brief notice we gather from Appleton's *Cyclopedia*, which is a mine of information.

THE EMPEROR NAPOLEON AND CAPTAIN ERICSSON.

IN connection with a portrait of Capt. J. Ericsson, in this number of *THE ECLECTIC*, it is due to him and to his reputation as a naval inventor to place before our readers the evidence which proves him to have been the original discoverer of the principle on which the *Monitor* steam-battery was built. The evidence is fully and briefly embraced in the following communication to the Emperor Napoleon III.:

The following is an extract of a communication from the city of New-York to Emperor Napoleon III., at Paris, by J. Ericsson, on the twenty-sixth of September, 1854. The receipt of the said communication was at once acknowledged by his Majesty.:

EXTRACT.

"NEW SYSTEM OF NAVAL ATTACK.—

The vessel to be composed entirely of iron. The midship section is triangular, with a broad, hollow keel, loaded to balance the heavy upper-works. The ends of the vessel are moderately sharp. The deck, made of plate-iron, is curved both longitudinally and transversely with a spring of five feet; it is made to project eight feet over the rudder and propeller. The entire deck is covered with a lining of sheet-iron three inches thick, with an opening in the center sixteen feet diameter. This opening is covered by a semi-globular turret of plate-iron, six inches thick, revolving on a column and pivot by means of steam-power and appropriate gear-work. The vessel is propelled by a powerful steam-engine and screw-propeller. Air for the combustion in the boilers is supplied by a large self-acting centrifugal blower, the fresh air being drawn in through na-

merous small holes in the turret. The products of the combustion and impure air from the vessel are forced out through conductors leading to a cluster of small holes in the deck and turret. Surrounding objects are viewed through small holes at appropriate places. Reflecting telescopes, capable of being protruded or withdrawn at pleasure, also afford a distinct view of surrounding objects. The rudder-stock passes through a water-tight stuffing-box, so as to admit of the helm being worked within the vessel. Shot striking the deck are deflected, whilst shell exploding on it will prove harmless. Shot (of cast iron) striking the globular turret will crumble to pieces or are deflected. This new system of naval attack will place an entire fleet of sailing-ships, during calms and light winds, at the mercy of a single craft. 'Boarding,' as a means of defense, will be impracticable, since the turret-guns, which turn like the spokes in a wheel, commanding every point of the compass at once, may keep off and destroy any number of boats by firing slugs and combustibles.

"A fleet at anchor might be fired and put in a sinking condition before enabled to get under way.

"Of what avail would be the 'steam guard-ships' if attacked on the new system? Alas for the 'wooden walls' that formerly 'ruled the waves!'

"The long-range Lancaster gun would scarcely hit the revolving iron turret once in six hours, and then, six chances to one, its shot or shell would be deflected by the varying angles of the face of the impregnable globe. When ultimately struck at right angles, the globe, which weighs upward of forty tons, will be less affected by the shock than a heavy anvil by the blow of a light hammer; consequently, the shot would crumble to pieces, whilst the shell would strew the arched deck with harmless fragments.

"During contest the revolving turret should be kept in motion, the port-holes being turned away from the opponent except at the moment of discharge, which, however, should be made during full rotation, as the lateral aim in close quarters requires but little precision."

ABSURDITY OF CAPTAIN COLES'S CLAIM.

Captain Coles states, in a letter to the *Times* of April 5th, 1862, that his experience in the Baltic and Black Seas, in 1855, suggested to him the idea of building impregnable vessels, and that toward the latter part of that year he had "a rough model made by the carpenter of the Stromboli," and that he proposed to protect the guns by a stationary shield or cupola. Captain Coles, it appears, met with no encouragement from the Admiralty, and therefore consulted Mr. Brunel, the celebrated engineer, who warmly embraced the plan. "He did more," says Captain Coles, in his letter to the *Times*; "he assisted me in my calculations, and gave me the aid of his draughtsmen." Captain Coles further states that, notwithstanding official neglect, he persevered, and in March, 1859, produced drawings of a "shield fitted with turn-tables." Lastly, in December, 1860, Captain Coles published, in *Blackwood's Magazine*, drawings of his "gun-shield and revolving platform," the platform being turned by manual power only.

The information thus conveyed would have been put before the public ere this, but for the supposition that the Emperor of the French would cause to be made known the fact that his Majesty received from Captain Ericsson already, in 1854, plans and description of the revolving cupola and shot-proof iron battery here shown.

